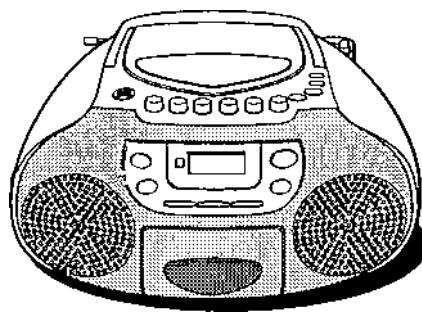




**CSD-A360**  
**CSD-A340**

LH(L,G,H,D)  
EZ(L)



# SERVICE MANUAL

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COMPACT DISC STEREO RADIO  
CASSETTE RECORDER

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BASIC TAPE MECHANISM : ZZM-1 AR2NC  
BASIC CD MECHANISM : DA11T3C

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**aiwa**  
S/M Code No. 09-012-353-9N1



## SPECIFICATIONS

### A340 (EZ)

#### **Tuner section**

Frequency range, antenna — FM: 87.5 - 108.0 MHz  
Rod antenna, MW: 530 - 1,605 kHz Ferrite bar antenna,  
LW: 150 - 285 kHz Ferrite bar antenna

#### **Deck section**

Track format — 4 tracks, 2 channels / Frequency range  
— Normal tape: 50 - 12,500 Hz (EIAJ) / Recording  
system — AC bias / Erasing system — Magnet erase /  
Heads — Recording/playback head (1), Erasure head  
(1)

#### **CD player section**

Disc — Compact disc / Scanning method — Non-  
contact optical scanner (semiconductor laser)

#### **General**

Speaker — 77 mm cone type (2) / Output —  
Headphones jack (stereo mini-jack) / Power output —  
2.9 W + 2.9 W (DIN MUSIC POWER), 2.5 W + 2.5 W  
(EIAJ 7 ohms, T.H.D. 10% DC), 1.9 W + 1.9 W (DIN 1%  
Rated Power) / Power requirements — DC 12 V using  
eight size C (R14) batteries, AC 230 V, 50 Hz / Power  
consumption — 15 W / Dimensions (W × H × D) — 310  
× 163 × 260 mm / Weight — 2.7 kg (excluding batteries)

- Design and specifications are subject to change without notice.

### A360 (LH)

#### **Tuner section**

Frequency range, antenna — FM: 87.5 - 108.0 MHz  
Rod antenna, AM: 530 - 1,710 kHz Ferrite bar antenna

#### **Deck section**

Track format — 4 tracks, 2 channels / Frequency range  
— Normal tape: 50 - 12,500 Hz (EIAJ) / Recording  
system — AC bias / Erasing system — Magnet erase /  
Heads — Recording/playback head (1), Erasure head  
(1)

#### **CD player section**

Disc — Compact disc / Scanning method — Non-  
contact optical scanner (semiconductor laser)

#### **General**

Speaker — 77 mm cone type (2) / Output —  
Headphones jack (stereo mini-jack) / Power output —  
2.5 W + 2.5 W (EIAJ 7 ohms, T.H.D. 10% DC), 1.9 W +  
1.9 W (DIN 1% Rated Power) / Power requirements —  
DC 12 V using eight size C (R14) batteries, AC 110-120  
V/ 220-240 V switchable, 50/60 Hz / Power  
consumption — 14 W / Dimensions (W × H × D) — 310  
× 163 × 260 mm / Weight — 2.7 kg (excluding batteries)

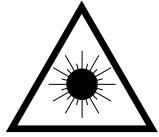
- Design and specifications are subject to change without notice.

# PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

## WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

## VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käytäjän turvallisuusluokan 1 ylitävälle näkymättömälle lasersäteilylle.

## VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

## CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

## ATTENTION

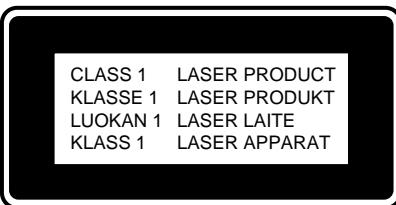
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

## ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

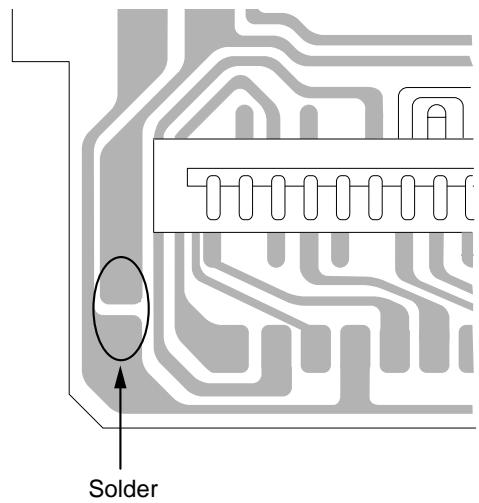
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



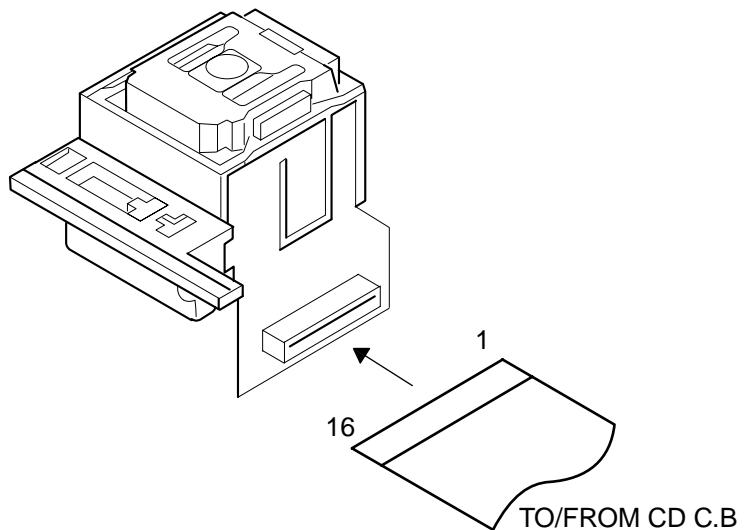
## Precaution to replace Optical block (SF-P101NR)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in the right figure.



PICK UP ASSY  
SF-P101NR



# ELECTRICAL MAIN PARTS LIST-1/4

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC				C401	87-010-403-080	CAP, ELECT 3.3-50V	
	87-A20-955-010	IC_LA1828		C402	87-010-197-080	CAP, CHIP 0.01 DM	
	87-A21-193-010	IC_TA8227P		C403	87-010-263-080	CAP, ELECT 100-10V	
	87-A21-443-040	C-IC_M62495AAPP		C404	87-010-248-080	CAP, ELECT 220-10V	
	87-A20-446-010	C-IC_LA9241ML		C405	87-010-197-080	CAP, CHIP 0.01 DM	
	87-A21-319-010	C-IC_LC78622NE		C406	87-010-374-080	CAP, ELECT 47-10V	
	87-A21-891-010	C-IC_MM1469XH		C407	87-018-131-080	CAP, CER 1000P-50V	
	88-CDL-600-010	C-IC_LC865516A-5T66		C408	87-010-198-080	CAP, CHIP 0.022	
	87-A21-431-010	IC_BA4560N		C409	87-010-248-080	CAP, ELECT 220-10V	
				C410	87-010-263-080	CAP, ELECT 100-10V	
TRANSISTOR				C411	87-A11-177-080	C-CAP,S 0.15-16 K B	
	89-327-143-080	TR_2SC2714 (0.1W)		C412	87-010-401-080	CAP, ELECT 1-50V	
	87-026-447-080	TR_2SC1740S R		C413	87-016-369-080	C-CAP,S 0.033-25 B K	
	87-026-463-080	TR_2SA933S (0.3W)		C414	87-010-405-080	CAP, ELECT 10-50V	
	87-A30-288-040	C-TR_DTC114YKA<EXCEPT 4EZLC>		C416	87-010-545-080	CAP, ELECT 0.22-50V	
	87-026-213-080	CHIP-TR_DTC114YK<4EZLC>		C417	87-012-157-080	C-CAP,S 330P-50 CH	
	89-327-126-010	TR_2SC2712		C418	87-010-213-080	C-CAP,S 0.015-50 B	
	89-318-154-080	TR_2SC1815 (0.4W)		C419	87-A11-608-080	C-CAP,S 0.33-25 K B	
	89-112-965-080	TR_2SA1296 (0.75W)		C420	87-016-369-080	C-CAP,S 0.033-25 B K	
	87-026-291-080	TR_DTC124XS		C421	87-A11-177-080	C-CAP,S 0.15-16 K B	
	89-213-702-080	TR_2SB1370E		C422	87-010-184-080	CHIP CAPACITOR 3300P(K)	
	87-026-462-080	TR_2SC1740 S(RS 0.3W)		C423	87-010-992-080	C-CAP,S 0.047-25 B	
	89-109-332-380	TR_2SA933RS		C424	87-016-460-080	C-CAP,S 0.22-16 B	
	87-A30-515-080	TR_2SA19790/Y		C425	87-018-129-080	CAP, CER 680P-50V	
	87-A30-287-040	C-TR_DTC114TKA		C426	87-A11-608-080	C-CAP,S 0.33-25 K B	
	87-A30-435-040	C-TR_DTC144EK T146		C428	87-010-197-080	CAP, CHIP 0.01 DM	
	87-026-215-080	TR_DTC114YS		C429	87-010-186-080	CAP, CHIP 4700P	
	89-317-403-080	TR_2SC1740S		C430	87-012-156-080	C-CAP,S 220P-50 CH	
	87-026-464-010	TR_DTC114TS		C431	87-010-545-080	CAP, ELECT 0.22-50V	
	87-026-464-080	TR_DTC114TS (0.3W)		C432	87-010-374-080	CAP, ELECT 47-10V	
DIODE				C433	87-010-401-080	CAP, ELECT 1-50V	
	87-020-465-080	DIODE_1SS133 (110mA)		C434	87-010-184-080	CHIP CAPACITOR 3300P(K)	
	87-A40-916-040	C-VARI-CAP_HVC202A		C435	87-010-197-080	CAP, CHIP 0.01 DM	
	87-A40-509-080	ZENER_MTZJ6.8C		C436	87-010-374-080	CAP, ELECT 47-10V	
	87-A40-648-080	ZENER_MTZJ8.2A		C437	87-010-404-080	CAP, ELECT 4.7-50V	
	87-A40-234-080	ZENER_MTZJ5.6A		C438	87-016-669-080	C-CAP,S 0.1-25 K B	
	87-017-978-080	DIODE_1N4003		C439	87-010-178-080	CHIP CAP 1000P	
	87-A40-344-080	ZENER_MTZJ6.2C		C440	87-018-139-080	CAP,TC-U 1P-50 CH	
	87-070-345-080	DIODE_IN4148		C441	87-010-197-080	CAP, CHIP 0.01 DM	
	87-A40-347-080	ZENER_MTZJ2.2B		C442	87-A10-140-010	CAP,CER 22P-50 K CH	
	87-A40-465-010	DIODE_FR202		C445	87-012-368-080	C-CAP,S 0.1-50 F	
				C446	87-012-368-080	C-CAP,S 0.1-50 F	
				C447	87-012-368-080	C-CAP,S 0.1-50 F	
				C448	87-010-315-080	C-CAP,S 27P-50 CH	
				C451	87-012-156-080	C-CAP,S 220P-50 CH	
MAIN-CD C.B				C455	87-010-247-080	CAP, ELECT 100-50V	
	C30	87-010-260-080	CAP, ELECT 47-25V	C457	87-010-312-080	C-CAP,S 15P-50 CH	
	C251	87-010-404-080	CAP, ELECT 4.7-50V	C458	87-010-312-080	C-CAP,S 15P-50 CH	
	C263	87-010-426-080	C-CAP,S 0.012-25 B	C459	87-010-263-080	CAP, ELECT 100-10V	
	C264	87-010-426-080	C-CAP,S 0.012-25 B	C460	87-015-819-080	CAPACITOR,0.01	
	C265	87-010-263-080	CAP, ELECT 100-10V	C461	87-010-197-080	CAP, CHIP 0.01 DM	
	C266	87-010-263-080	CAP, ELECT 100-10V	C462	87-010-248-080	CAP, ELECT 220-10V	
	C267	87-010-112-080	CAP, ELECT 100-16V	C463	87-018-134-080	CAPACITOR,TC-U 0.01-16	
	C268	87-010-112-080	CAP, ELECT 100-16V	C465	87-010-404-080	CAP, ELECT 4.7-50V	
	C271	87-010-221-080	CAP, ELECT 470-10V	C466	87-012-368-080	C-CAP,S 0.1-50 F	
	C272	87-010-221-080	CAP, ELECT 470-10V	C467	87-010-263-080	CAP, ELECT 100-10V	
	C278	87-010-384-080	CAP, ELECT 100-25V	C469	87-012-154-080	C-CAP,S 150P-50 CH	
	C279	87-010-385-080	CAP, ELECT 220-25V	C471	87-012-368-080	C-CAP,S 0.1-50 F	
△	C301	87-016-495-000	CAP,E 3300-25 M SMG	C472	87-015-785-080	CHIP CAPACITOR, 0.1FZ-25Z	
	C306	87-010-404-080	CAP, ELECT 4.7-50V	C473	87-012-368-080	C-CAP,S 0.1-50 F	
	C307	87-010-401-080	CAP, ELECT 1-50V	C474	87-015-785-080	CHIP CAPACITOR, 0.1FZ-25Z	
	C308	87-010-221-080	CAP, ELECT 470-10V	C475	87-018-134-080	CAPACITOR,TC-U 0.01-16	
	C311	87-010-404-080	CAP, ELECT 4.7-50V	C476	87-010-236-080	CAP,E 1000-10 SME	
	C312	87-010-385-080	CAP, ELECT 220-25V	C477	87-010-197-080	CAP, CHIP 0.01 DM	
	C317	87-015-819-080	CAPACITOR,0.01	C478	87-010-263-080	CAP, ELECT 100-10V	
	C321	87-010-197-080	CAP, CHIP 0.01 DM	C479	87-010-197-080	CAP, CHIP 0.01 DM	
	C322	87-010-263-080	CAP, ELECT 100-10V	C480	87-010-221-080	CAP, ELECT 470-10V	
	C324	87-010-260-080	CAP, ELECT 47-25V	C481	87-010-405-080	CAP, ELECT 10-50V	
	C325	87-010-405-080	CAP, ELECT 10-50V	C482	87-010-405-080	CAP, ELECT 10-50V	
				C489	87-012-368-080	C-CAP,S 0.1-50 F	

# ELECTRICAL MAIN PARTS LIST-2/4

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C490	87-012-368-080	C-CAP,S 0.1-50 F		C830	87-010-178-080	CHIP CAP 1000P	
C491	87-018-134-080	CAPACITOR,TC-U 0.01-16		C834	87-010-248-080	CAP, ELECT 220-10V	
C492	87-010-221-080	CAP, ELECT 470-10V		C843	87-018-134-080	CAPACITOR,TC-U 0.01-16	
C493	87-010-180-080	C-CER 1500P		C844	87-018-124-080	CAP, CER 270P-50V	
C501	87-012-368-080	C-CAP,S 0.1-50 F		C845	87-010-178-080	CHIP CAP 1000P	
C502	87-010-322-080	C-CAP,S 100P-50 CH		C846	87-010-263-080	CAP, ELECT 100-10V	
C503	87-018-119-080	CAP, CER 100P-50V		C851	87-018-133-080	CAPACITOR,CER 4700P-16V	
C504	87-010-322-080	C-CAP,S 100P-50 CH		C852	87-018-131-080	CAP, CER 1000P-50V	
C505	87-010-322-080	C-CAP,S 100P-50 CH		C853	87-A11-145-080	CAP,TC U 0.01-50 Z F	
C506	87-010-322-080	C-CAP,S 100P-50 CH		C889	87-010-196-080	CHIP CAPACITOR,0.1-25	
C510	87-016-669-080	C-CAP,S 0.1-25 K B		CN201	87-099-757-010	CONN,16P 9604S F	
C831	87-010-198-080	CAP, CHIP 0.022		CN701	87-A60-109-010	CONN,2P V S2M-2W	
CN202	8A-CH4-687-010	CONN,4P V 2.5		CN801	87-A60-110-010	CONN,4P V S2M-4W	
CN205	87-A60-109-010	CONN,2P V S2M-2W		CNA302	8A-CD9-629-010	CONN ASSY,6P MA-TU	
CN301	8A-CH4-689-010	CONN,3P V 2.5		L301	87-005-165-080	COIL 1UH (H,E)	
CN401	87-A60-424-010	CONN,16P V TOC-B		L302	87-005-165-080	COIL 1UH (H,E)	
CN403	87-099-201-010	CONN,8P 6216 H		L303	87-005-165-080	COIL 1UH (H,E)	
CN802	8A-CH4-687-010	CONN,4P V 2.5		L801	87-007-342-010	COIL,OSC 85K BIAS	
CNA402	8A-CD9-625-010	CONN ASSY,6P CD-ME		SW801	8Z-CD9-609-010	SW,SL 1-6-2 PS62D01	
HP1	S2-3B0-112-000	JACK,HP 3.5					
L401	87-003-102-080	COIL, 10UH					FRONT C.B
L404	87-003-152-080	COIL, 100UH					
R840	87-029-124-010	RES,FUSE 2.2-1/4		C601	87-010-313-080	CAP, CHIP 18P	
SFR430	87-024-437-080	SFR100K,RH063BC		C602	87-010-315-080	C-CAP,S 27P-50 CH	
X401	8Z-CD5-633-010	VIB, CER16.93MHZ FCR16.93M2		C603	87-010-319-080	C-CAP,S 56P-50 CH	
				C604	87-010-317-010	CHIP CAP,S 39P CH	
				C605	87-010-264-040	CAP,E 100-10 5L	
MAIN-TP C.B							
C211	87-012-142-080	CAP, S 0.33-16		C607	87-012-368-080	C-CAP,S 0.1-50 F	
C212	87-012-142-080	CAP, S 0.33-16		C608	87-010-401-080	CAP, ELECT 1-50V	
C215	87-016-460-080	C-CAP,S 0.22-16 B		C609	87-010-400-080	CAP, ELECT 0.47-50V	
C216	87-016-460-080	C-CAP,S 0.22-16 B		C611	87-A10-189-040	CAP,E 220-10	
C231	87-010-213-080	C-CAP,S 0.015-50 B		C613	87-012-368-080	C-CAP,S 0.1-50 F	
C232	87-010-213-080	C-CAP,S 0.015-50 B		C614	87-010-312-080	C-CAP,S 15P-50 CH	
C233	87-012-142-080	CAP, S 0.33-16		C617	87-012-368-080	C-CAP,S 0.1-50 F	
C234	87-012-142-080	CAP, S 0.33-16		C618	87-012-368-080	C-CAP,S 0.1-50 F	
C235	87-016-669-080	C-CAP,S 0.1-25 K B		C628	87-018-211-080	CAP, CER 0.01-50	
C236	87-016-669-080	C-CAP,S 0.1-25 K B		C630	87-018-119-080	CAP, CER 100P-50V	
C237	87-010-371-080	CAP, ELECT 470-6.3V		C631	87-018-119-080	CAP, CER 100P-50V	
C239	87-018-134-080	CAPACITOR,TC-U 0.01-16		C632	87-018-119-080	CAP, CER 100P-50V	
C240	87-018-134-080	CAPACITOR,TC-U 0.01-16		C638	87-018-211-080	CAP, CER 0.01-50	
C247	87-010-401-080	CAP, ELECT 1-50V		CN601	87-099-757-010	CONN,16P 9604S F	
C248	87-010-401-080	CAP, ELECT 1-50V		CN602	87-099-201-010	CONN,8P 6216 H	
C310	87-010-248-080	CAP, ELECT 220-10V		CNA604	8B-CDB-616-010	CONN ASSY,3P V ORN KEY	
C316	87-010-263-080	CAP, ELECT 100-10V		L601	87-003-102-080	COIL, 10UH	
C317	87-015-819-080	CAPACITOR,0.01		L606	87-003-149-080	COIL,47UH	
C701	87-010-545-080	CAP, ELECT 0.22-50V		L608	87-003-231-080	C-COIL 1UH	
C702	87-010-400-080	CAP, ELECT 0.47-50V		L609	87-003-231-080	C-COIL 1UH	
C703	87-010-405-080	CAP, ELECT 10-50V		L611	87-003-231-080	C-COIL 1UH	
C704	87-010-248-080	CAP, ELECT 220-10V		LED610	8A-CDA-646-010	LED,6224-10GD GRN<EXCEPT 4EZLC>	
C705	87-010-400-080	CAP, ELECT 0.47-50V		LED611	87-CD8-616-010	LED,SA36-11 HWA-11.0	
C707	87-010-405-080	CAP, ELECT 10-50V		S601	87-A91-704-080	SW,TACT EVQ 214 05R	
C708	87-010-405-080	CAP, ELECT 10-50V		S602	87-A91-704-080	SW,TACT EVQ 214 05R	
C709	87-016-369-080	C-CAP,S 0.033-25 B K		S603	87-A91-704-080	SW,TACT EVQ 214 05R	
C801	87-010-248-080	CAP, ELECT 220-10V		S604	87-A91-704-080	SW,TACT EVQ 214 05R	
C805	87-012-365-080	C-CAP,S 0.027-25VBK		S605	87-A91-704-080	SW,TACT EVQ 214 05R	
C806	87-012-365-080	C-CAP,S 0.027-25VBK		S606	87-A91-704-080	SW,TACT EVQ 214 05R	
C807	87-010-405-080	CAP, ELECT 10-50V		S607	87-A91-704-080	SW,TACT EVQ 214 05R	
C808	87-010-405-080	CAP, ELECT 10-50V		S608	87-A91-704-080	SW,TACT EVQ 214 05R	
C809	87-010-401-080	CAP, ELECT 1-50V		X601	87-030-273-010	VIB,XTAL 32.768K5PPM	
C810	87-010-401-080	CAP, ELECT 1-50V		X602	87-030-376-080	VIB,CER CSA5.76MG200	
C811	87-010-178-080	CHIP CAP 1000P					
C812	87-010-178-080	CHIP CAP 1000P					
C816	87-010-180-080	C-CER 1500P		CN605	8Z-CS3-621-010	CONN,3P LED	
C817	87-010-180-080	C-CER 1500P		S609	87-A91-704-080	SW,TACT EVQ 214 05R<EXCEPT 4EZLC>	
C821	87-010-401-080	CAP, ELECT 1-50V		S611	87-A91-704-080	SW,TACT EVQ 214 05R	
C822	87-010-401-080	CAP, ELECT 1-50V		S614	87-A91-704-080	SW,TACT EVQ 214 05R	
C823	87-010-178-080	CHIP CAP 1000P		S615	87-A91-704-080	SW,TACT EVQ 214 05R	
C824	87-010-178-080	CHIP CAP 1000P					
C829	87-010-178-080	CHIP CAP 1000P					
							TUNER C.B

# ELECTRICAL MAIN PARTS LIST-3/4

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C1	87-010-314-080	C-CAP,S 22P-50V		C902	87-A11-146-080	CAP,TC U 0.022-50 Z F	
C2	87-010-316-080	C-CAP,S 33P-50 CH		C903	87-A11-146-080	CAP,TC U 0.022-50 Z F	
C3	87-010-314-080	C-CAP,S 22P-50V		C904	87-A11-146-080	CAP,TC U 0.022-50 Z F	
C5	87-010-378-080	CAP, ELECT 10-16V		CNA901	8A-CD9-627-010	CONN ASSY,3P PWR	
C7	87-012-156-080	C-CAP,S 220P-50 CH		APR901	87-A90-092-080	PROTECTOR,2.5A 491	
C8	87-010-197-080	CAP, CHIP 0.01 DM		SP901	87-CD6-213-010	SPR-C,BATT (-)	
C9	87-010-311-080	CAP 12P		SP902	87-CD6-213-010	SPR-C,BATT (-)	
C10	87-010-197-080	CAP, CHIP 0.01 DM					BATT2 C.B
C11	87-010-152-080	C-CAP,S 8P-50 CH					
C12	87-010-314-080	C-CAP,S 22P-50V					
C13	87-010-322-080	C-CAP,S 100P-50 CH		SP903	87-CD6-213-010	SPR-C,BATT (-)	
C14	87-010-148-080	CAP, CHIP S 75P SL		SP904	87-CD6-213-010	SPR-C,BATT (-)	
C15	87-016-669-080	C-CAP,S 0.1-25 K B					MOTOR C.B
C16	87-010-178-080	CHIP CAP 1000P					
C17	87-016-669-080	C-CAP,S 0.1-25 K B					
C18	87-010-198-080	CAP, CHIP 0.022		M2	S0-M10-A09-700	MOTOR SLED ASSY	
C19	87-016-669-080	C-CAP,S 0.1-25 K B		PIN3	S2-369-750-000	PLUG,6P	
C20	87-010-400-080	CAP, ELECT 0.47-50V		SW1	S4-S13-A01-600	SW,LEAF	
C21	87-010-403-080	CAP, ELECT 3.3-50V					
C22	87-010-197-080	CAP, CHIP 0.01 DM					
C24	87-010-197-080	CAP, CHIP 0.01 DM<EXCEPT 4EZLC>					
C24	87-010-188-080	CAP,CHIP 6800P<4EZLC>					
C25	87-010-197-080	CAP, CHIP 0.01 DM<EXCEPT 4EZLC>					
C25	87-010-188-080	CAP,CHIP 6800P<4EZLC>					
C26	87-012-358-080	C-CAP,S 0.47-10 F Z					
C27	87-012-358-080	C-CAP,S 0.47-10 F Z					
C28	87-010-992-080	C-CAP,S 0.047-25 B					
C29	87-010-992-080	C-CAP,S 0.047-25 B					
C30	87-010-248-080	CAP, ELECT 220-10V					
C31	87-010-379-080	CAP, ELECT 22-16V					
C32	87-010-197-080	CAP, CHIP 0.01 DM					
C33	87-010-197-080	CAP, CHIP 0.01 DM					
C34	87-010-197-080	CAP, CHIP 0.01 DM					
C35	87-010-197-080	CAP, CHIP 0.01 DM					
C36	87-010-263-080	CAP, ELECT 100-10V					
C37	87-010-197-080	CAP, CHIP 0.01 DM					
C40	87-010-150-080	C-CAP,S 6P-50 CH<4EZLC>					
C41	87-010-321-080	CHIP CAPACITOR,82P(J)<4EZLC>					
C44	87-012-140-080	CAP 470P<4EZLC>					
C50	87-012-156-080	C-CAP,S 220P-50 CH					
C51	87-010-197-080	CAP, CHIP 0.01 DM					
C52	87-010-197-080	CAP, CHIP 0.01 DM					
C56	87-010-148-080	CAP, CHIP S 75P SL<EXCEPT 4EZLC>					
CF1	87-A90-128-010	FLTR,AM IF CFAL-455					
CF2	87-008-261-010	FILTER, SFE10.7MA5-A					
CF3	87-008-261-010	FILTER, SFE10.7MA5-A					
CN2	87-A60-116-010	CONN,6P H S2M-6WR					
L2	87-A50-560-010	COIL,FM BPF(ACD)					
L3	8A-CD9-660-010	BAR-ANT,MW 2B-ACD(COI)<EXCEPT 4EZLC>					
L3	8A-CD9-661-010	BAR-ANT,MW/LW 3B-ACD(COI)<4EZLC>					
L4	87-A50-562-010	COIL,FM RF EX(ACD)					
L5	87-A50-564-010	COIL,FM OSC EX(ACD)					
L6	87-A50-337-010	COIL,AM OSC (TOKO)<EXCEPT 4EZLC>					
L7	87-A50-579-010	COIL,AM IFT(ACD)					
L8	87-A50-335-010	COIL,FM IFT (TOKO)					
L9	87-A50-577-010	COIL,FM DET(ACD)					
L10	87-005-849-080	COIL,10UH(CECS)					
L16	87-A50-569-010	COIL,LW OSC-ACD(COI)<4EZLC>					
L17	87-A50-337-010	COIL,AM OSC (TOKO)<4EZLC>					
PVC1	87-A91-635-010	TUN-CAP,20P-140P E-ACD(MITSUMI)<4EZLC>					
PVC1	87-A91-167-010	TUN-CAP,20P-160P FA-22125 N000<EXCEP 4EZLC>					
SW1	87-A91-548-010	SW,SL-2-3 SK23E01G06<EXCEPT 4EZLC>					
SW1	87-A91-549-010	SW,SL-6-4 SK64D01G06<4EZLC>					
TC5	87-011-253-080	TRIMER,30P LAR<4EZLC>					
TC6	87-011-253-080	TRIMER,30P LAR<4EZLC>					

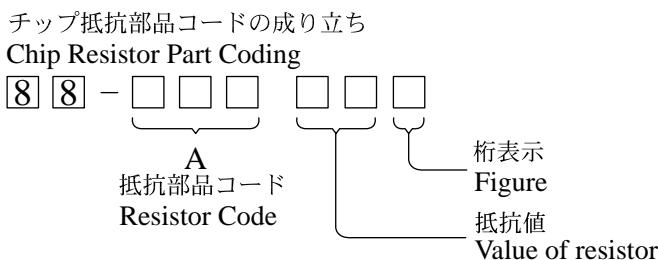
BATT1 C.B

C901 87-A11-146-080 CAP,TC U 0.022-50 Z F

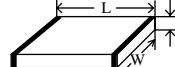
## ELECTRICAL MAIN PARTS LIST-4/4

- Regarding connectors, they are not stocked as they are not the initial order items.  
The connectors are available after they are supplied from connector manufacturers upon the order is received.

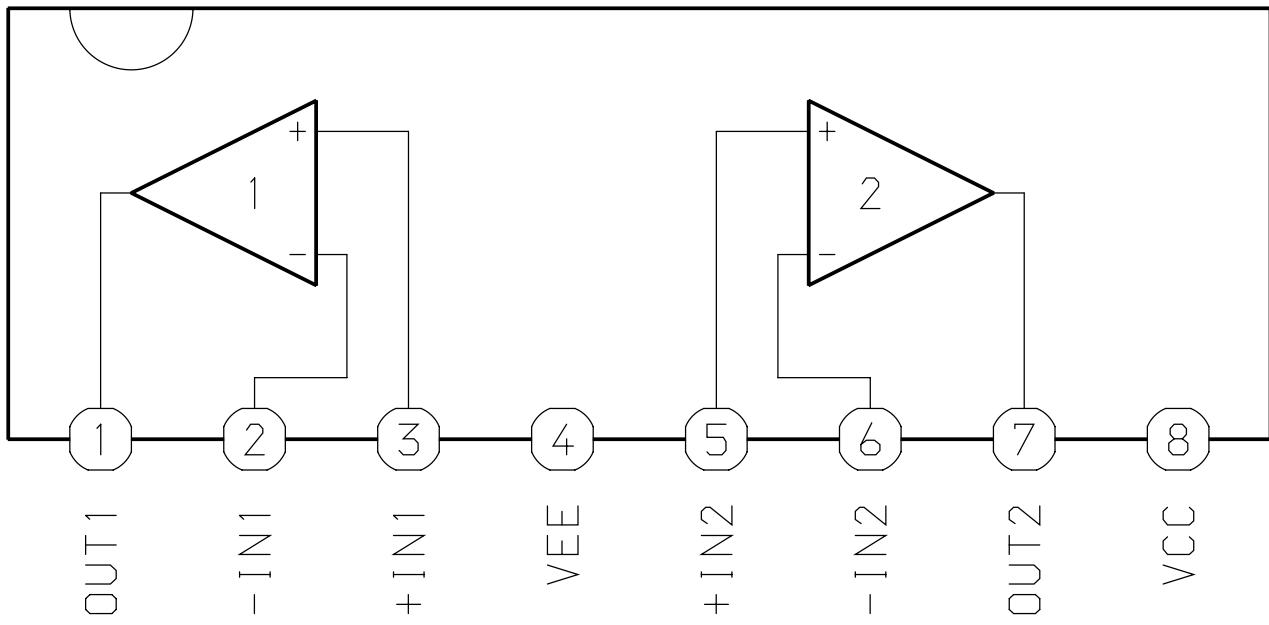
### ○チップ抵抗部品コード／CHIP RESISTOR PART CODE



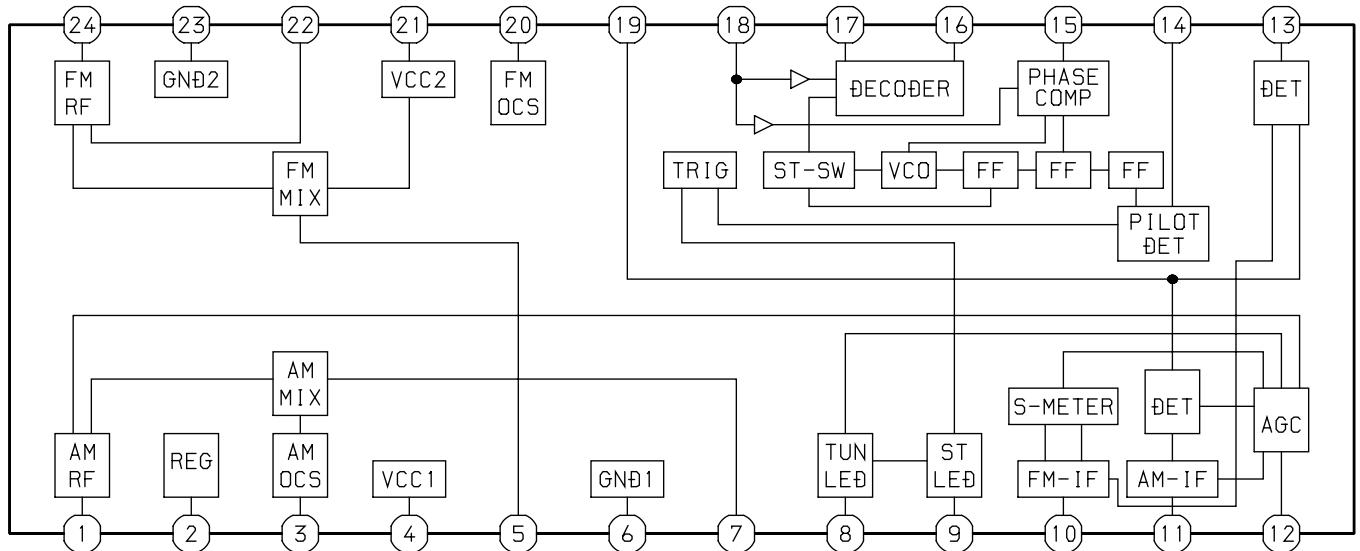
### チップ抵抗 Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)			抵抗コード Resistor Code : A	
				外形／Form	L	W		
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

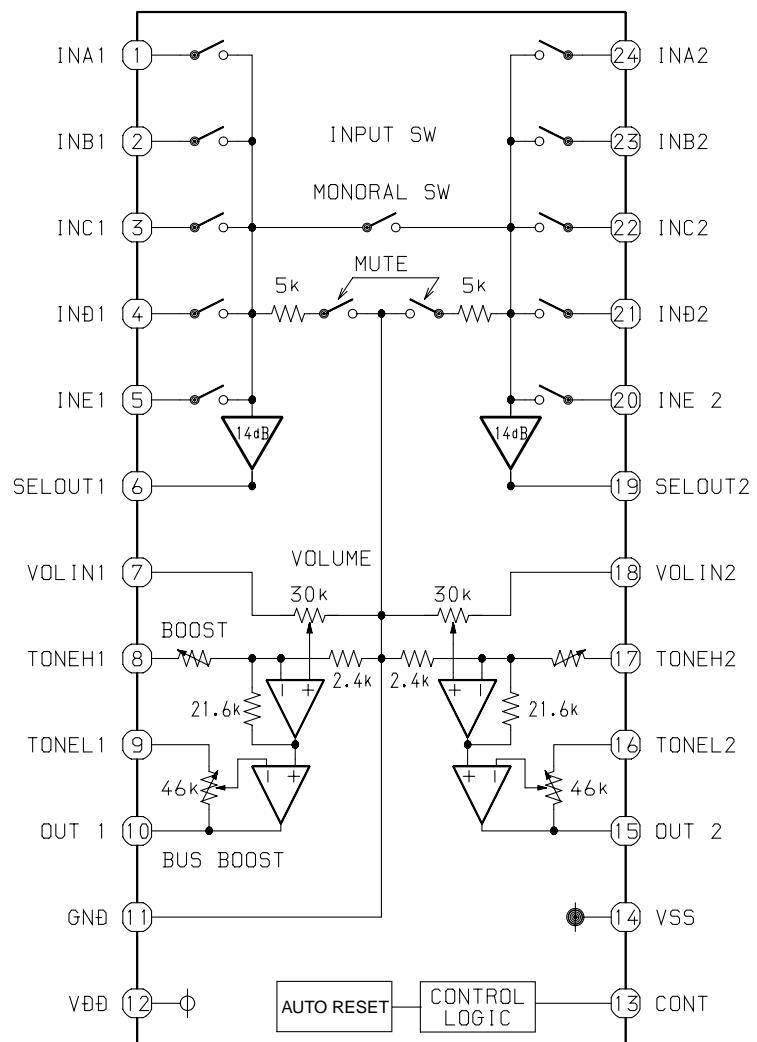
IC BLOCK DIAGRAM-1/2  
IC, BA4560N



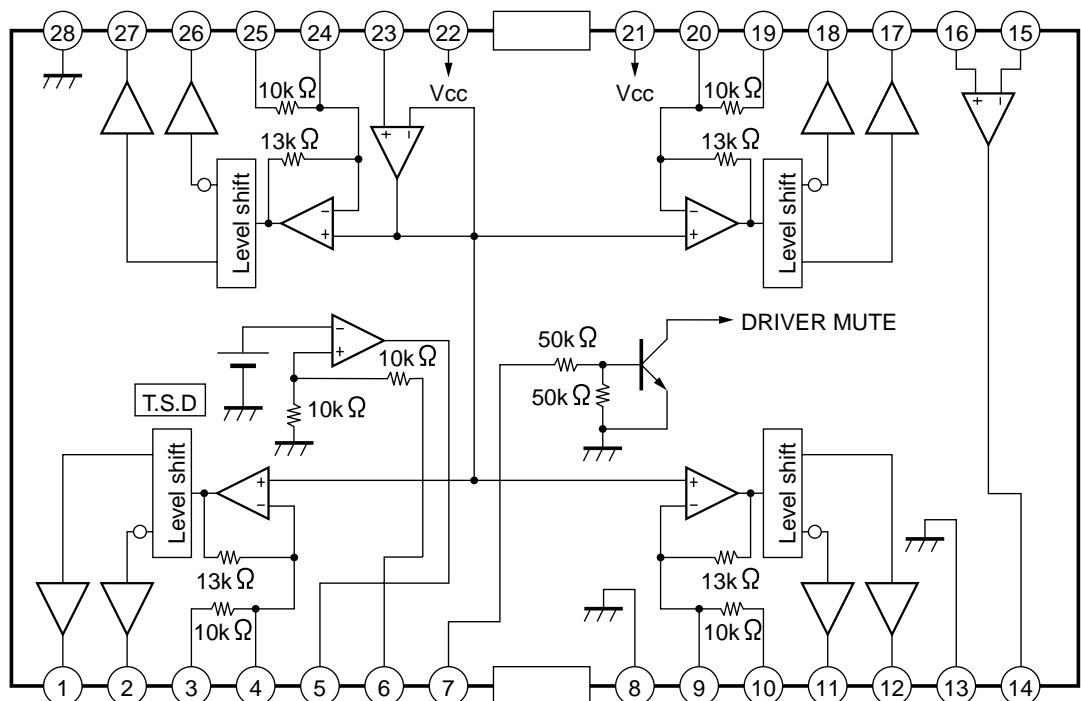
IC, LA1828



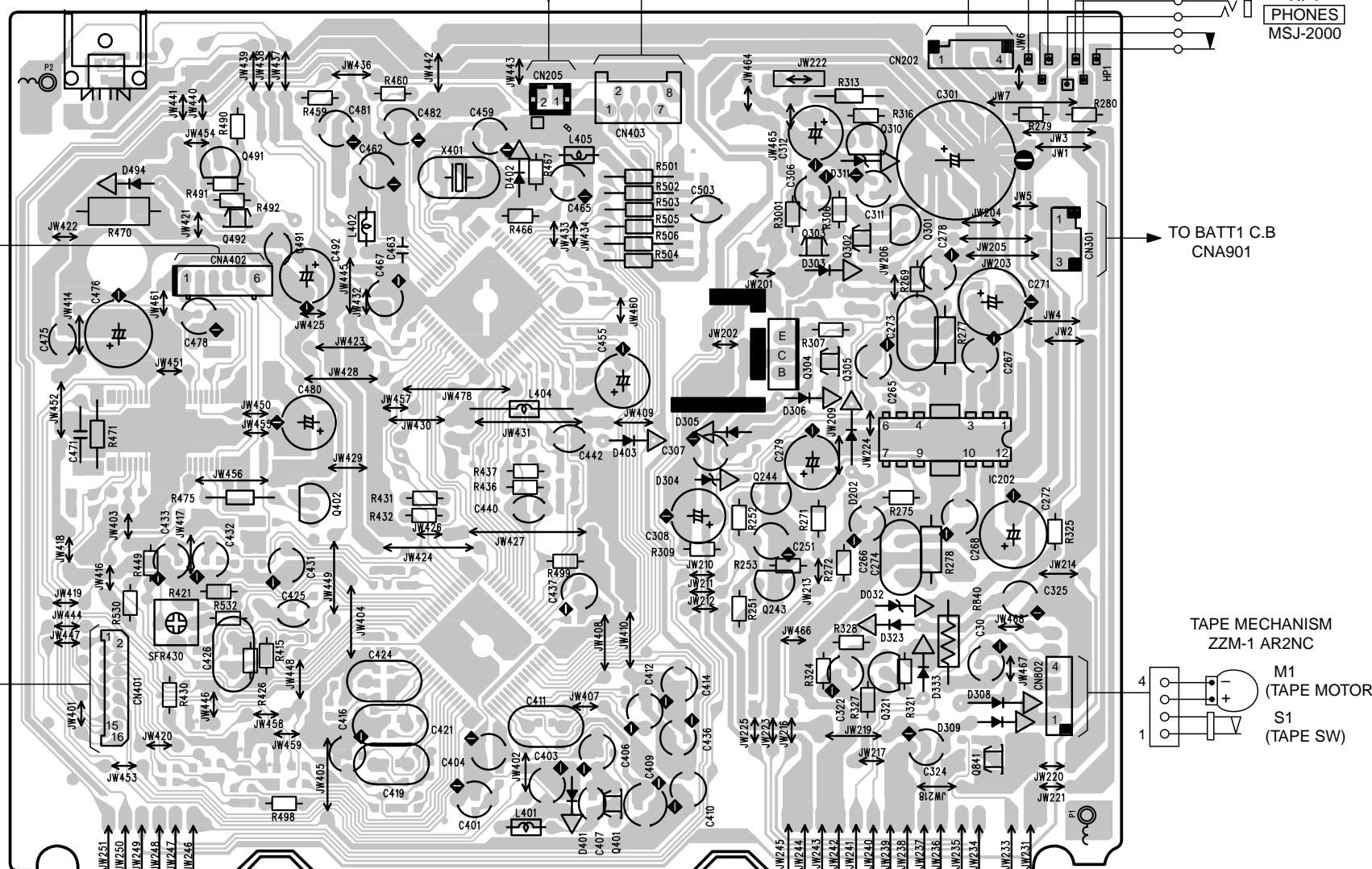
IC BLOCK DIAGRAM-2/2  
IC, M62495A



IC, MM1469XH

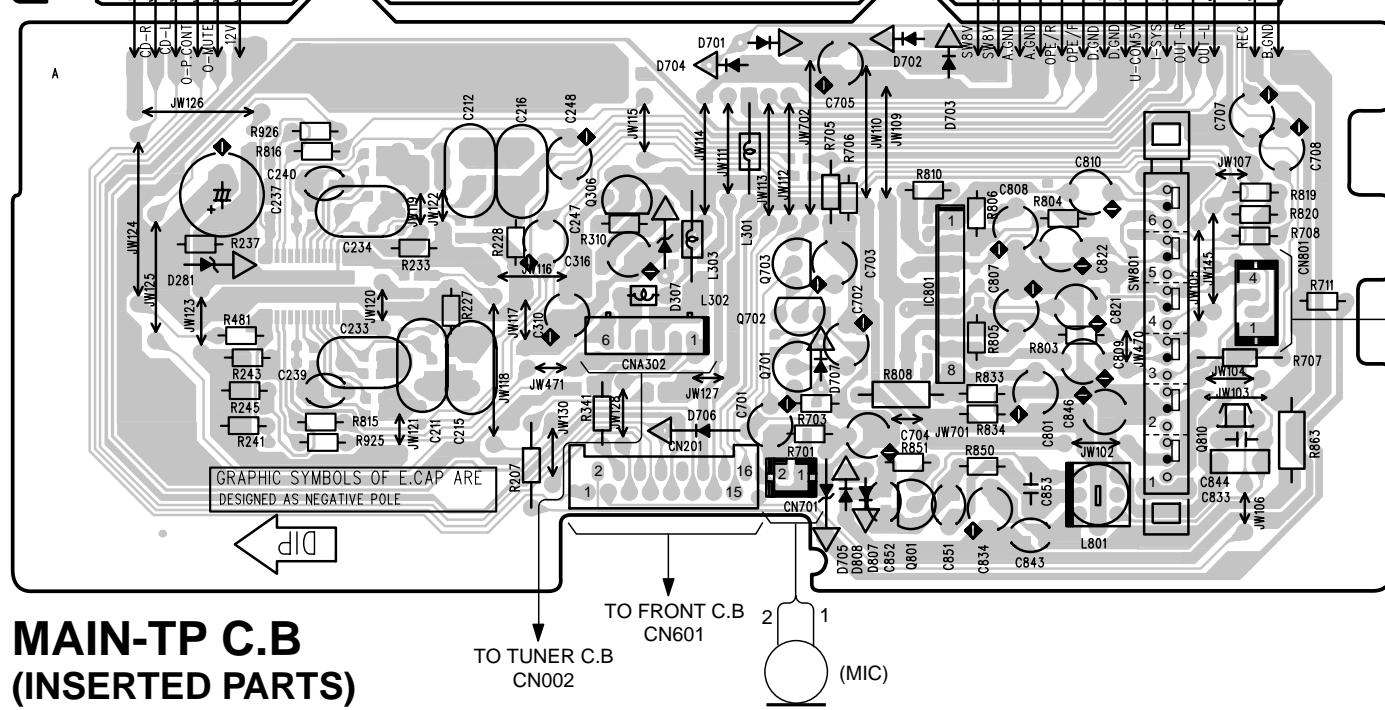


## MAIN-CD C.B (INSERTED PARTS)



TO CD MECHANISM  
PA 14TSC

## MAIN-TP C.B (INSERTED PARTS)

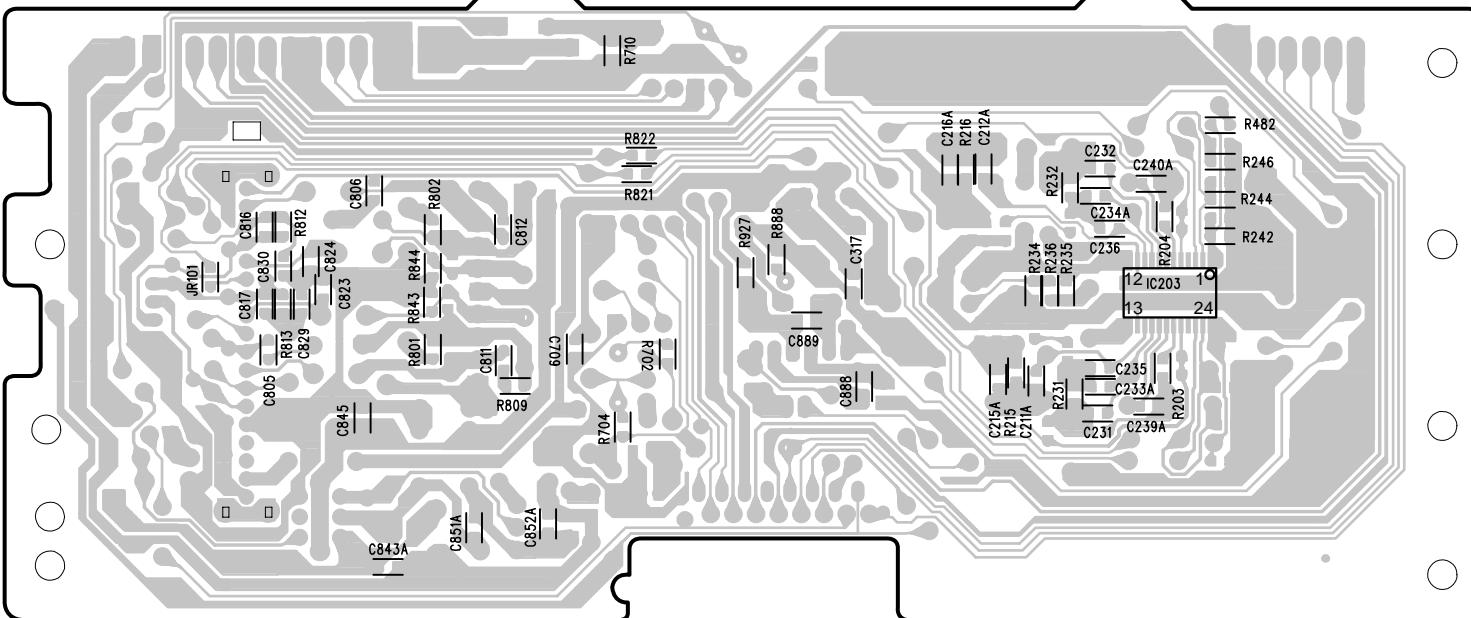
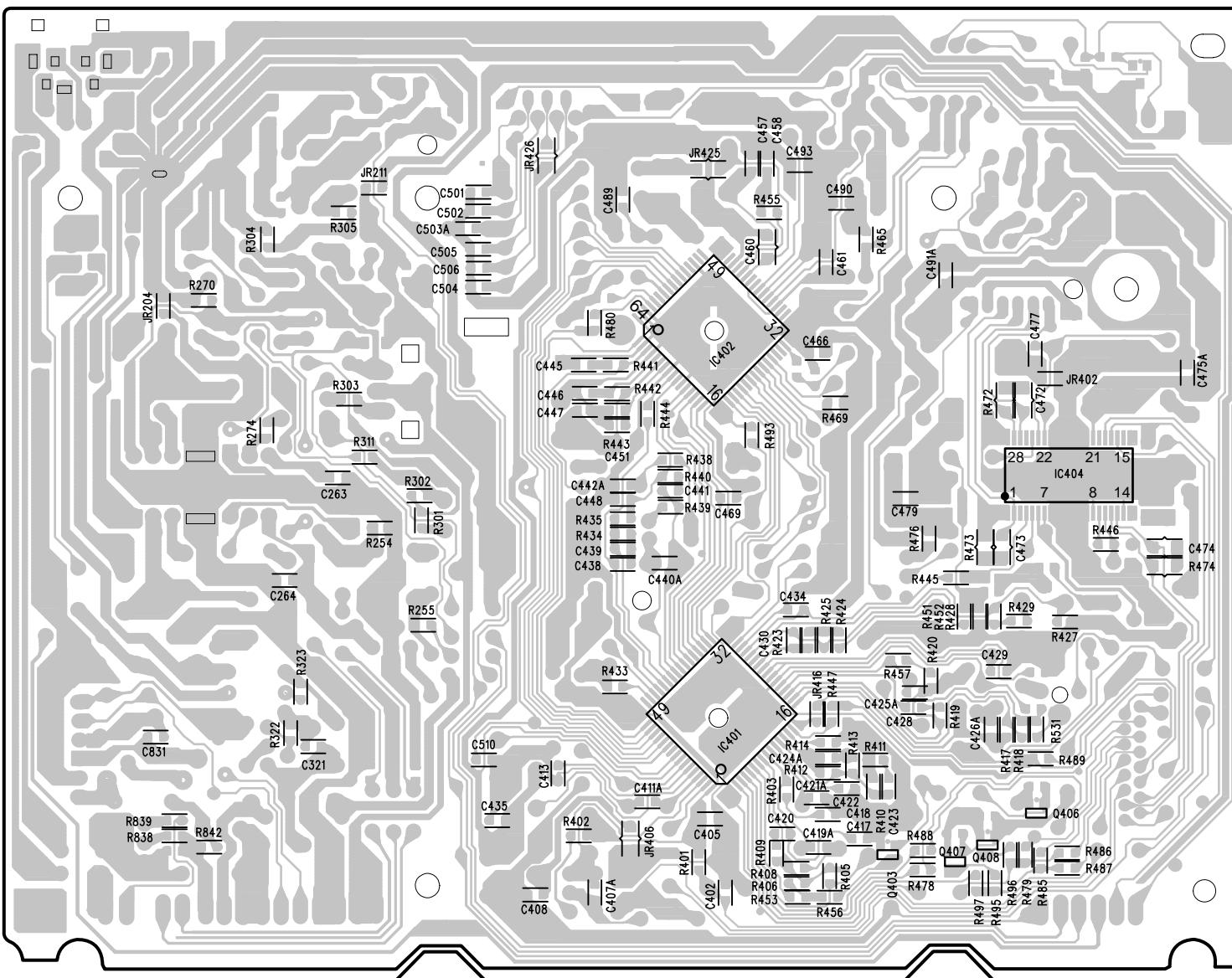


↓  
TO TUNER  
CN002

TO TUNER C.B  
CN002

-11-

## MAIN-CD C.B (CHIP PARTS)



## MAIN-TP C.B (CHIP PARTS)

## NOTE

RXXX

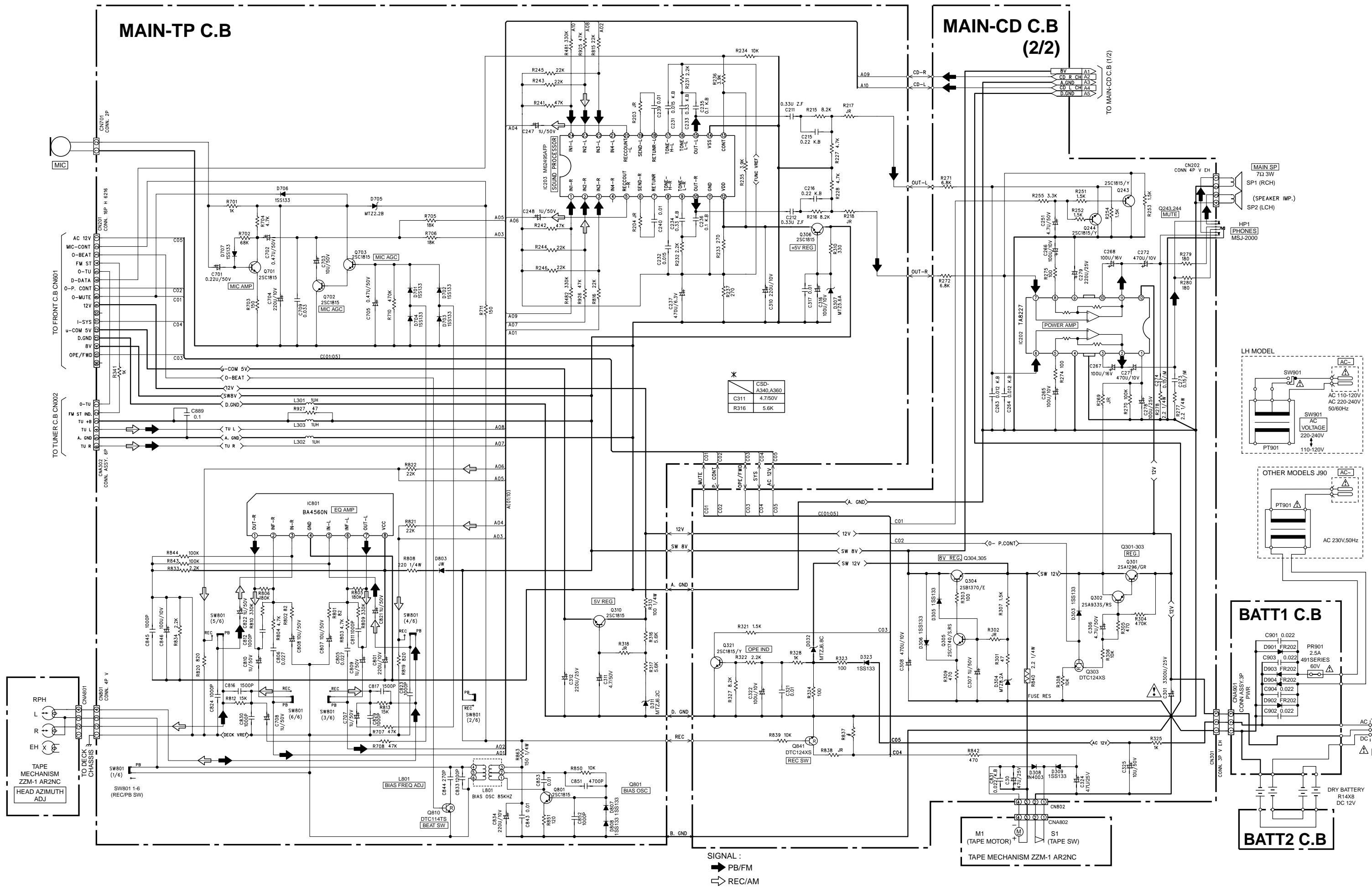
XXXX

—  
—

QXXX

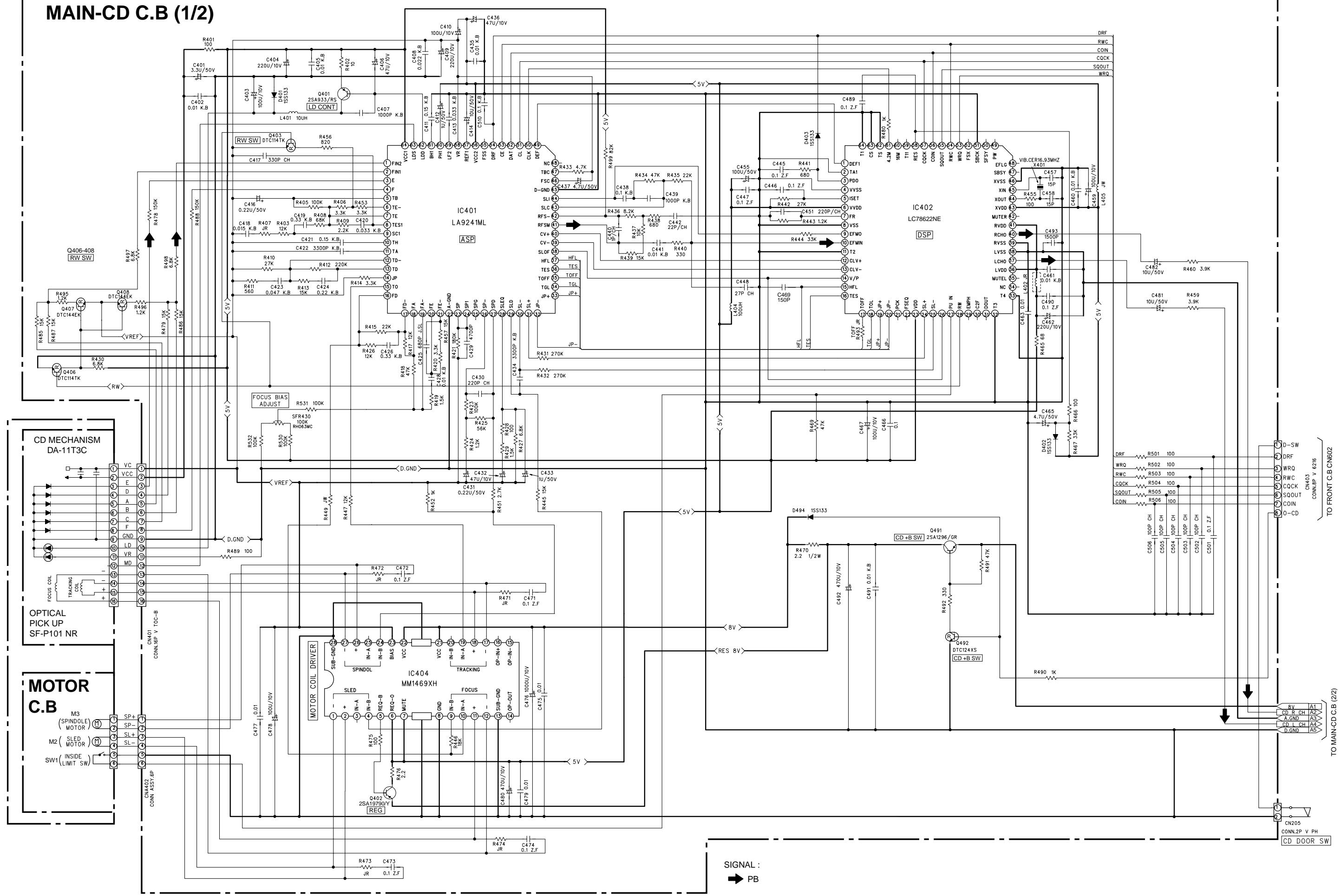
1

SCHEMATIC DIAGRAM-1/5 (MAIN-TP/MAIN-CD 2/2)

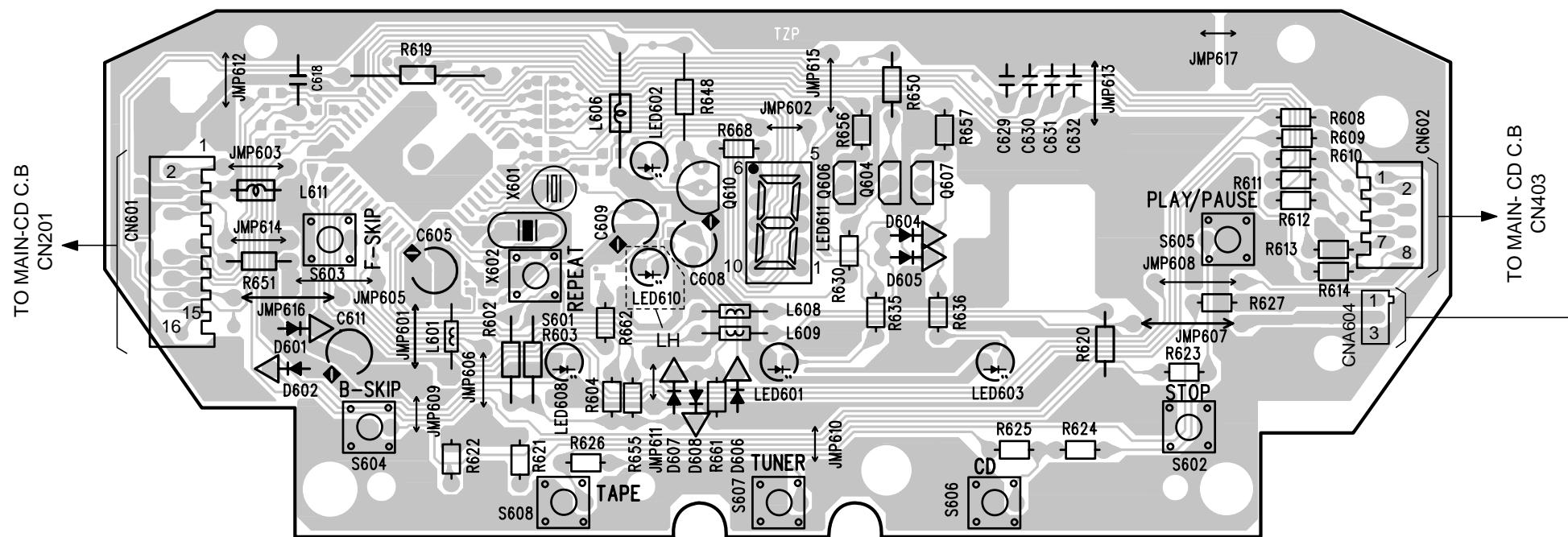
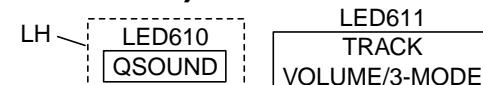


## SCHEMATIC DIAGRAM-2/5 (MAIN-CD 1/2)

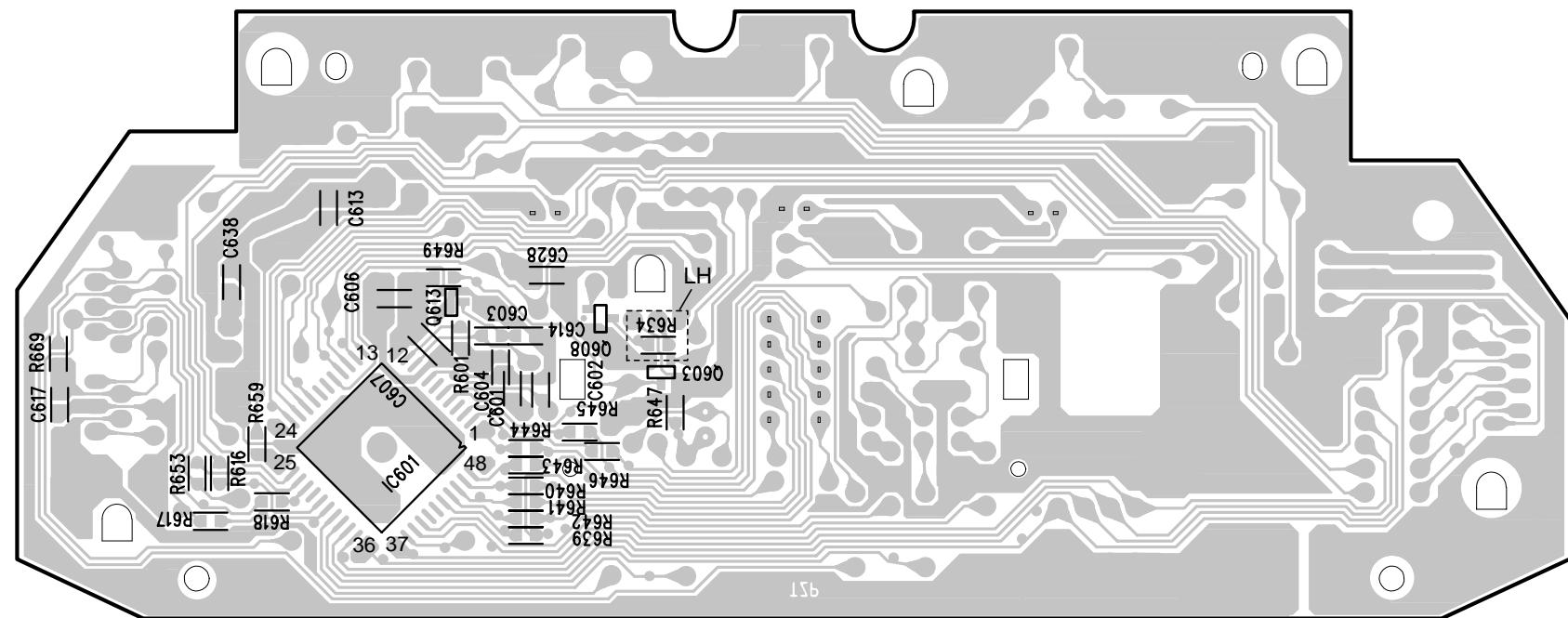
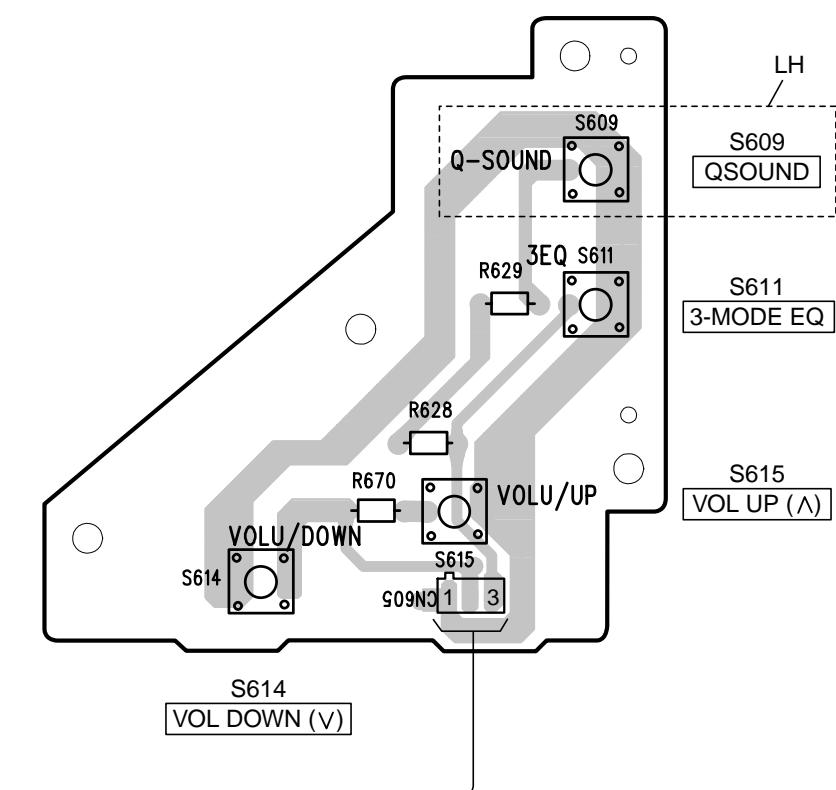
## MAIN-CD C.B (1/2)



## FRONT C.B (INSERTED PARTS)

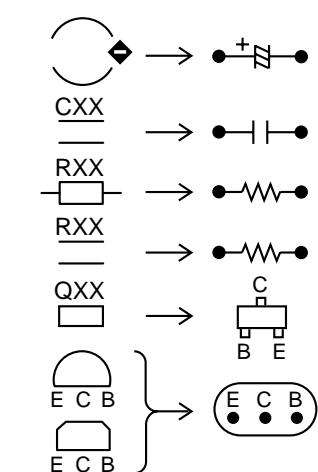


S603 SKIP/SEARCH (▶)	S601 REPEAT SLEEP/OSC	LED601 RADIO	LED603 CD	S605 PLAY/PAUSE (▶)
	LED608 ⌚ STANDBY OPE/BATT			
S604 SKIP/SEARCH (◀)	S607 RADIO	S606 CD	S602 STOP/MEMORY (■)	

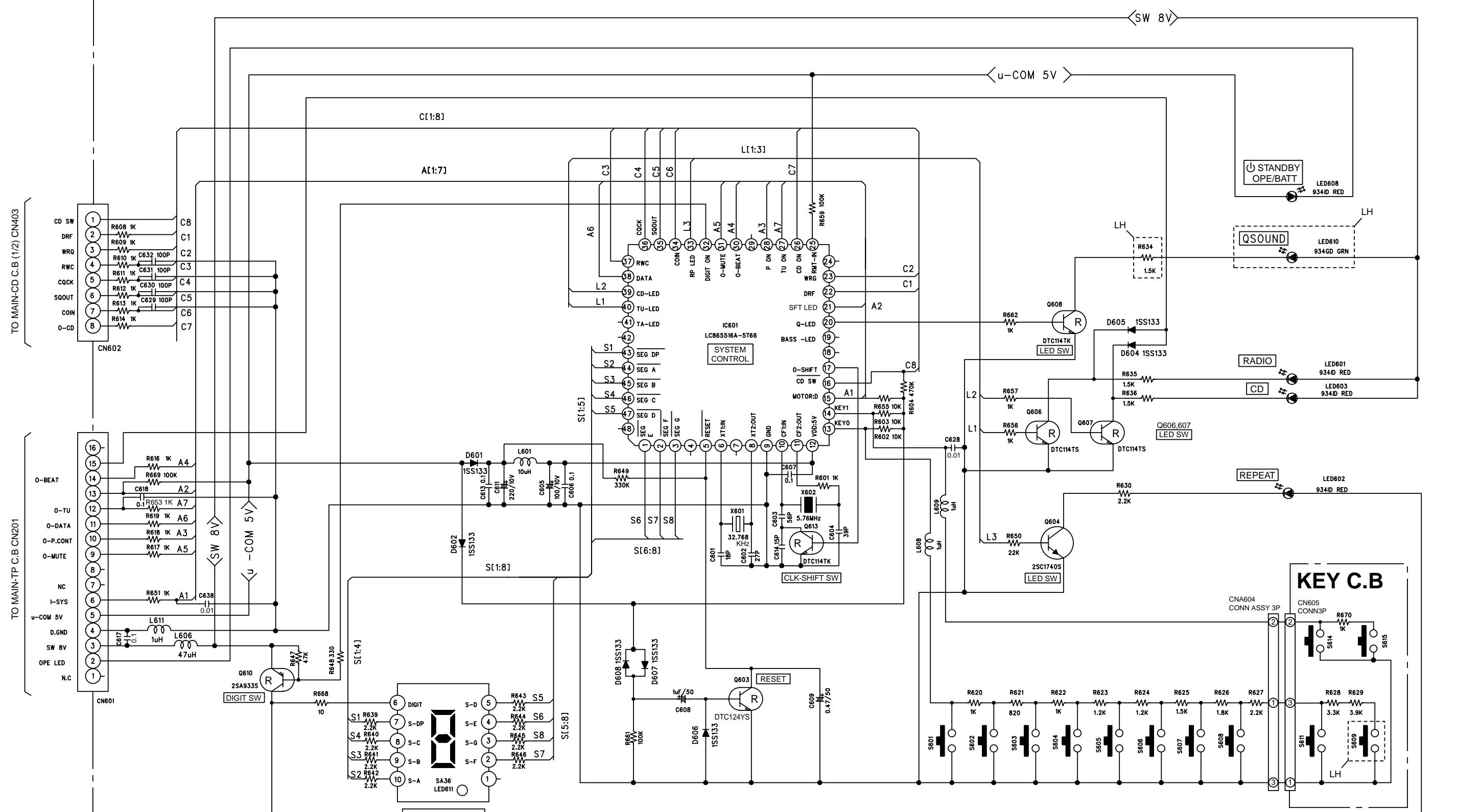


## FRONT C.B (CHIP PARTS)

NOTE



## FRONT C.B

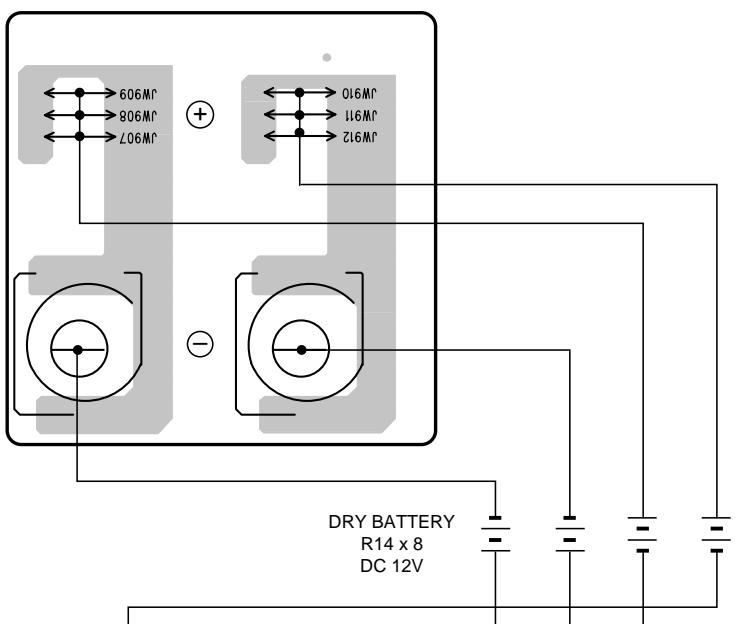


S601	REPEAT	SLEEP/OSC	S607	RADIO
S602	STOP/MEMORY (■)		S608	TAPE/POWER (STANDBY)
S603	SKIP/SEARCH (▶)		S609	QSOUND (LH MODEL)
S604	SKIP/SEARCH (◀)		S611	3-MODE EQ
S605	PLAY/PAUSE (■)		S614	VOL DOWN (▼)
S606	CD		S615	VOL UP (▲)

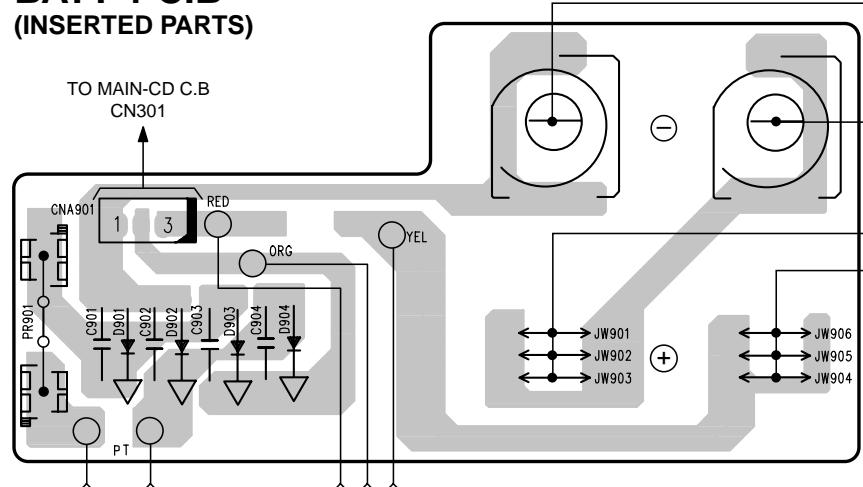
# WIRING-4/6 (BATT1/BATT2)

15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

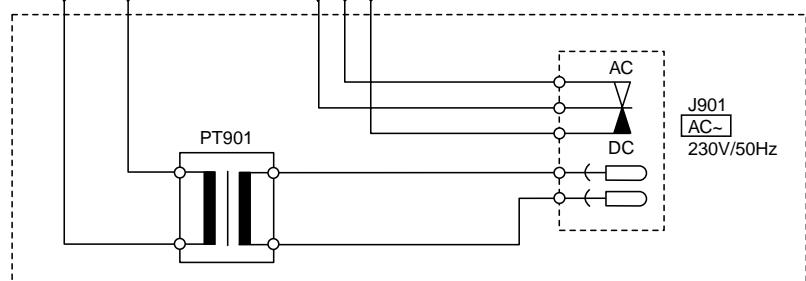
## BATT 2 C.B (INSERTED PARTS)



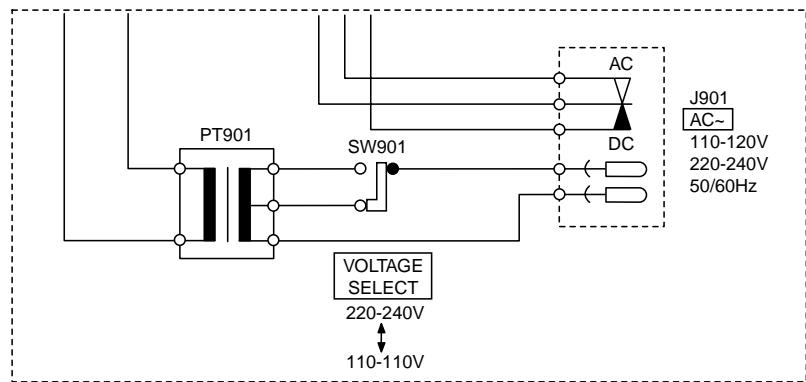
## BATT 1 C.B (INSERTED PARTS)



A340 (EZ)  
MODEL



A360 (LH)  
MODEL

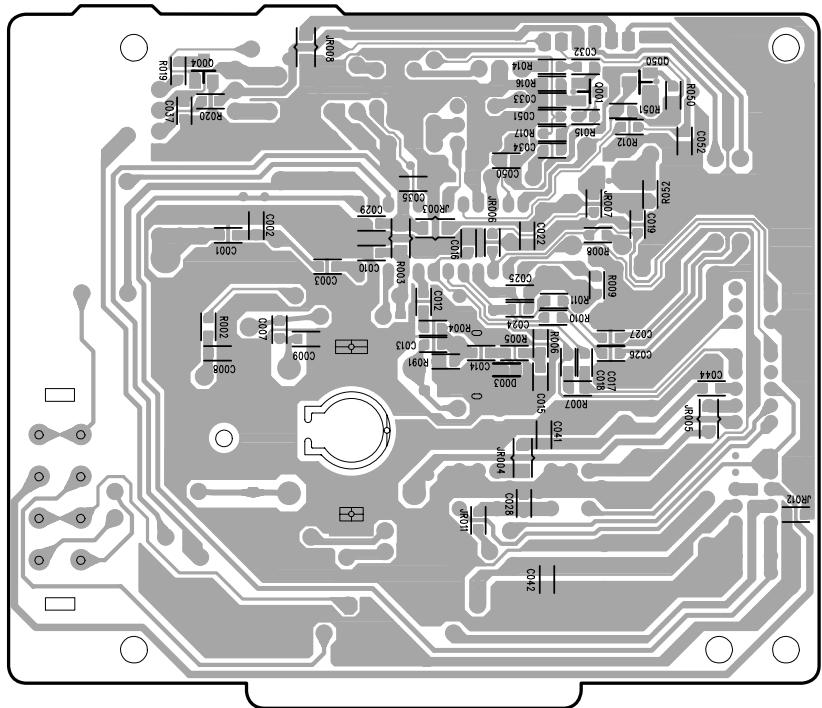
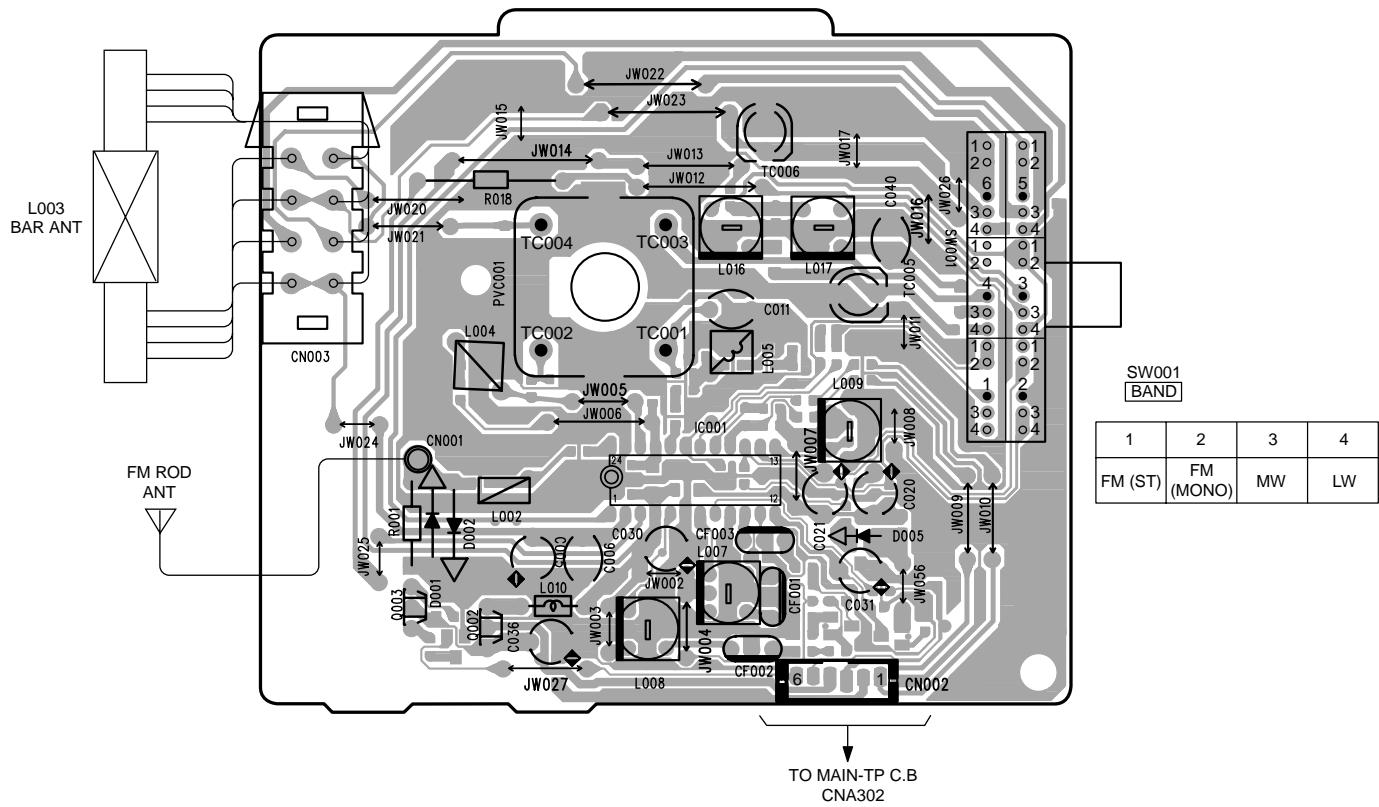


# WIRING-5/6 (TUNER: EZ)

15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P  
Q  
R  
S  
T  
U  
V  
W  
X  
Y  
Z

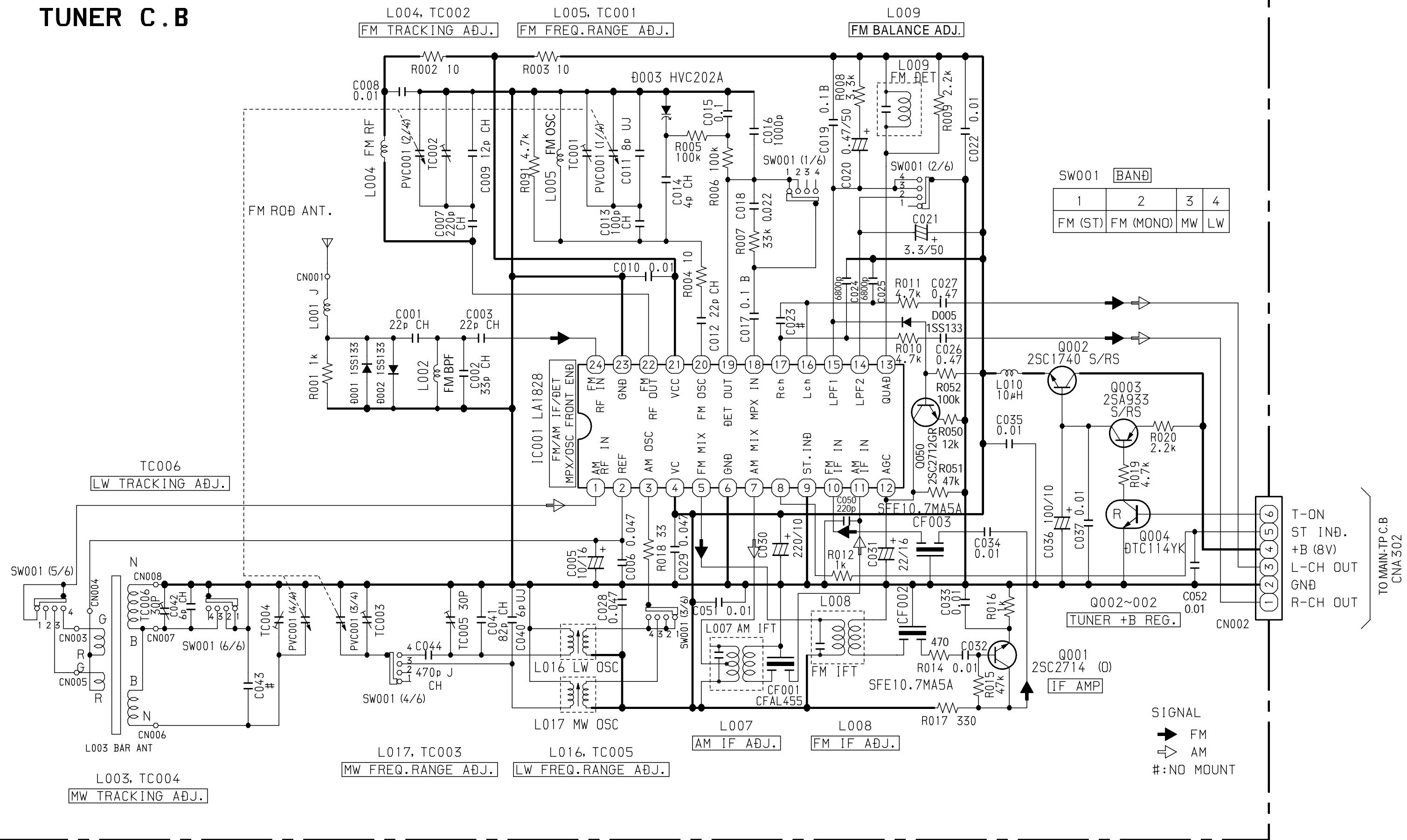
## TUNER C.B (INSERTED PARTS)



## TUNER C.B (CHIP PARTS)

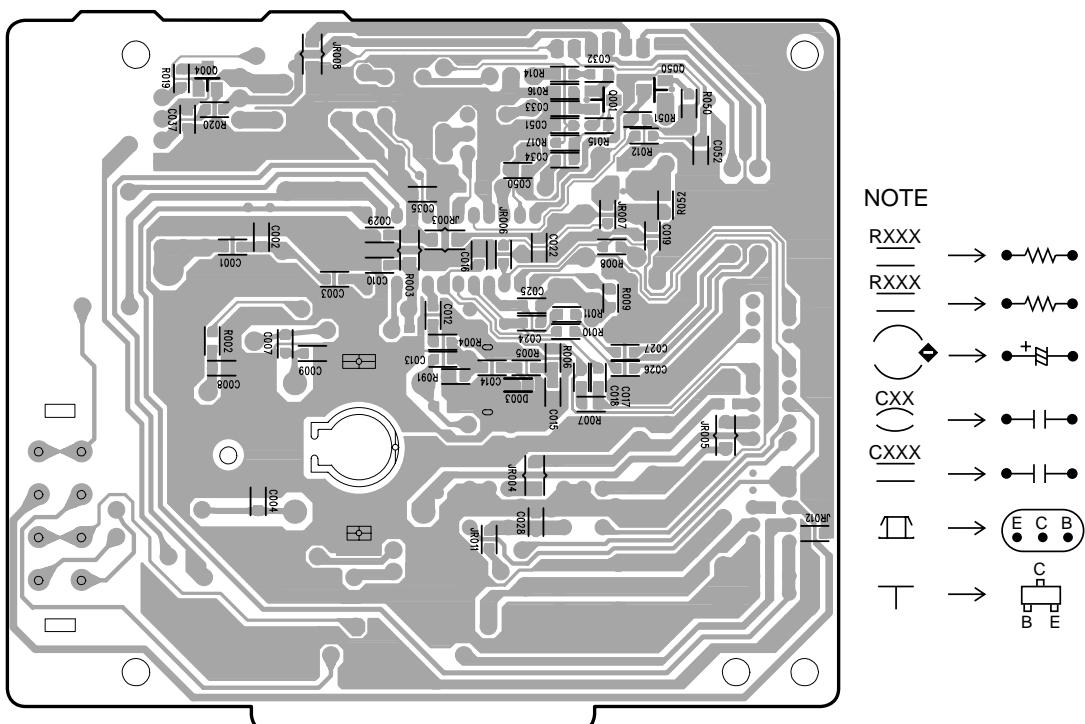
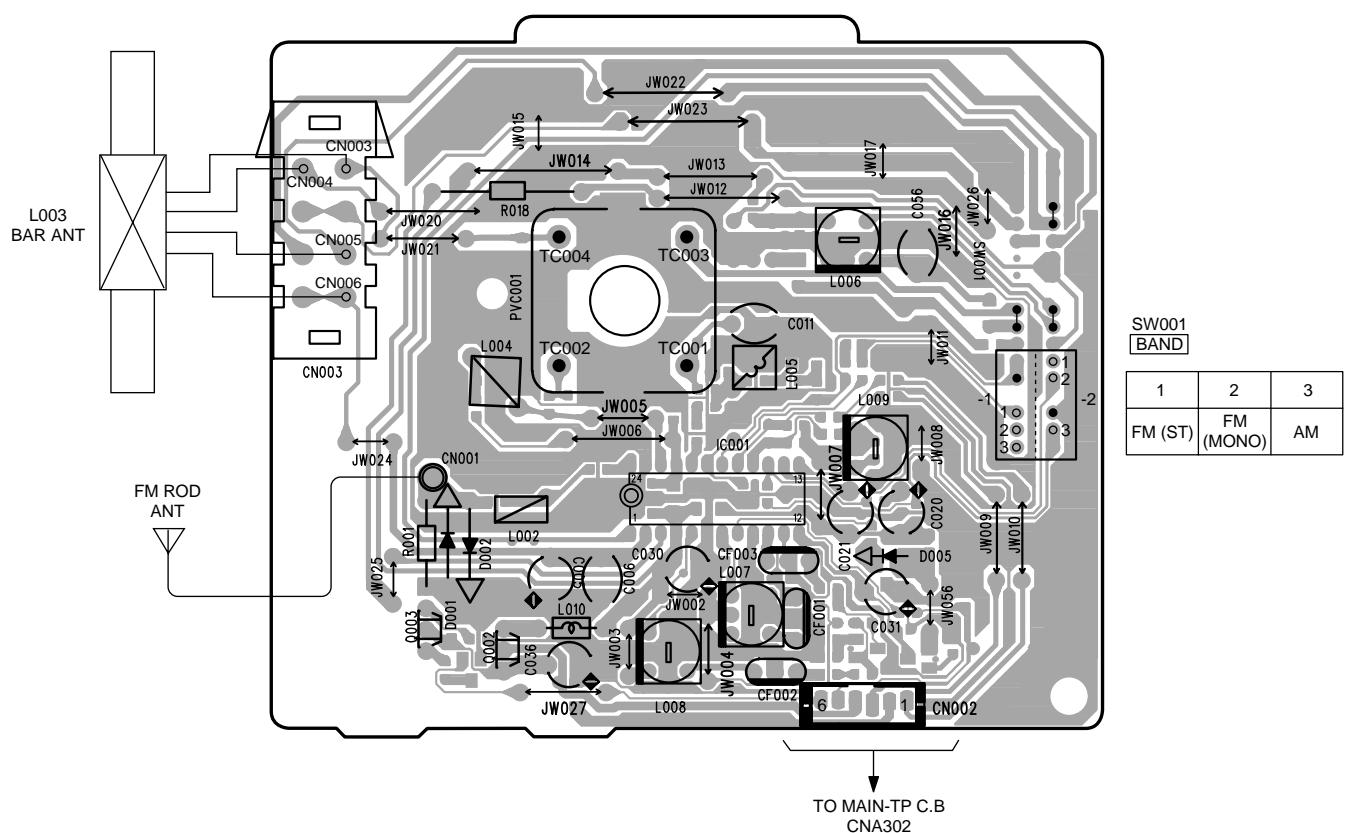
NOTE
RXXX → ●—●
RXXX → ●—●
CXXX → ●—●
CXXX → ●—●
□ → (E C B)
— → C B

## TUNER C. B



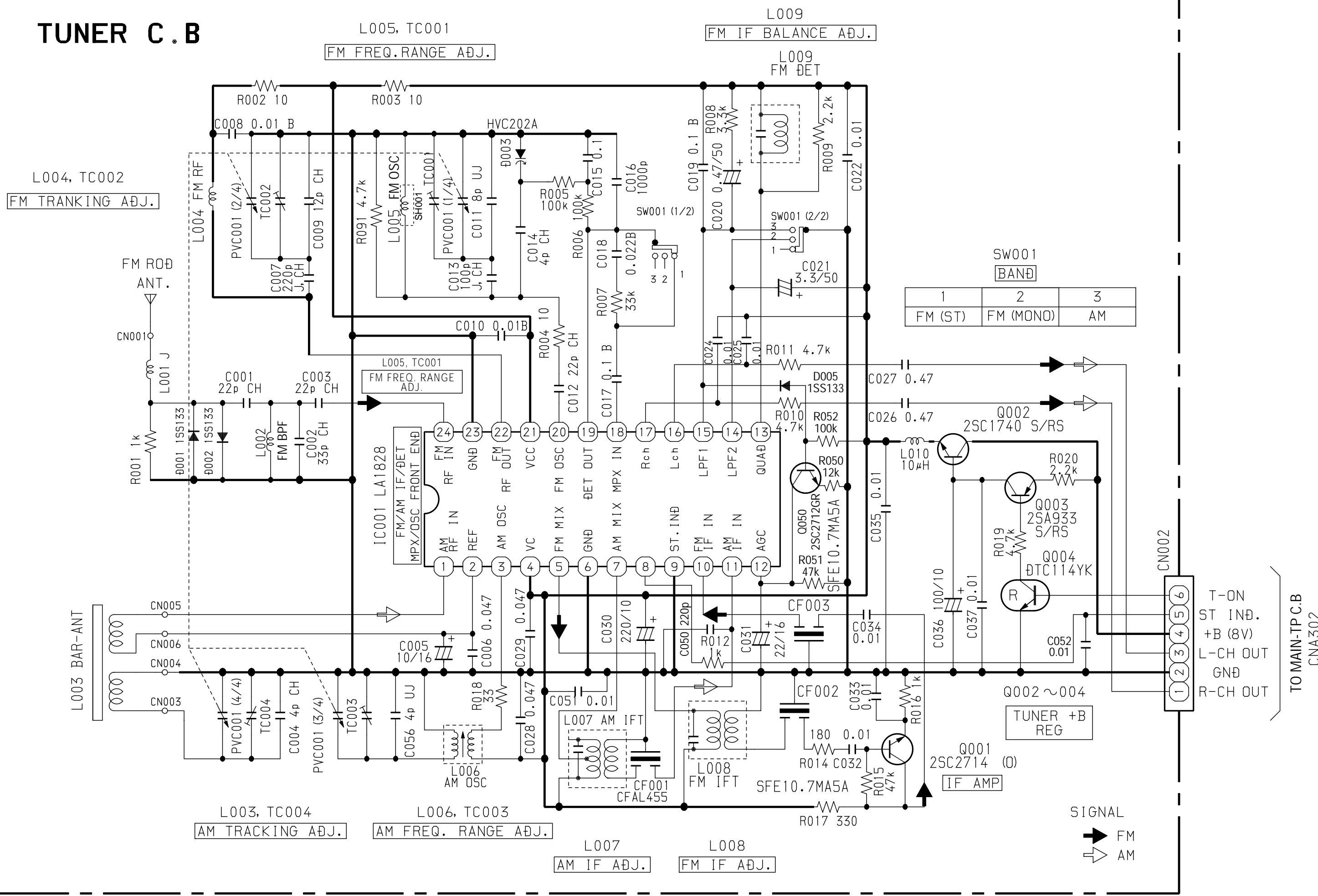
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P  
Q  
R  
S  
T  
U  
C

## TUNER C.B (INSERTED PARTS)



## TUNER C.B (CHIP PARTS)

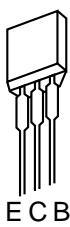
## TUNER C.B



# TRANSISTOR ILLUSTRATION-1/1



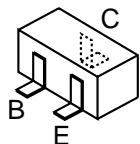
2SA1296  
2SC1815



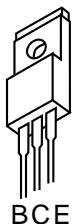
2SA933  
2SC1740  
DTC114TS  
DTC114YS  
DTC124XS



2SA1979



2SC2714  
DTC114TK  
DTC114YK  
DTC144EK



2SB1370

# VOLTAGE CHART-1/4

## IC404 MM1469XH

PIN	1	2	3	4	5	6	7	8	9	10	11	12
ACTIVE	4.2	4.2	2.95	2.95	8.2	5.8	5.8	0	2.95	3.00	4.27	4.01
STATIC	3.61	3.62	2.54	2.54	7.24	5.02	5.02	0	2.55	2.55	3.61	3.63
PIN	13	14	15	16	17	18	19	20	21	22	23	24
ACTIVE	0	8.40	1.45	1.45	4.10	4.10	2.90	2.90	8.90	8.90	2.90	2.90
STATIC	0	7.39	0.78	0.8	3.63	3.62	2.54	2.55	7.96	7.96	2.55	2.55
PIN	25	26	27	28								
ACTIVE	2.90	4.50	3.71	0								
STATIC	2.54	3.61	3.62	0								

## IC402 LC78622NE

PIN	1	2	3	4	5	6	7	8	9	10	11	12
ACTIVE	0	0	1.8	0	2.1	5.6	0.4	0	2.8	2.7	0	0.3
STATIC	0	0	0.01	0	1.85	4.98	0.07	0	2.52	2.41	0	0
PIN	13	14	15	16	17	18	19	20	21	22	23	24
ACTIVE	0	0	0	1.5	0	5.6	0	0	2.7	5.6	5.6	0
STATIC	0	5	0.01	0.04	5.01	5.01	0	0	2.48	0	5.02	0
PIN	25	26	27	28	29	30	31	32	33	34	35	36
ACTIVE	0	0	5.6	0	0	0	2.8	0	0	0	0	5.3
STATIC	0	5	5	0	0	4.95	2.48	0	0	0	5.02	4.77
PIN	37	38	39	40	41	42	43	44	45	46	47	48
ACTIVE	2.15	0	0	2.15	5.3	0	5.5	2.3	2.3	2.3	0.1	0
STATIC	1.94	0	0	1.95	4.77	5	5.02	2.08	2.06	0	0.08	2.27
PIN	49	50	51	52	53	54	55	56	57	58	59	60
ACTIVE	0.1	2.77	0	2.77	0.9	0	0	5.16	5	5.5	0	2.25
STATIC	0	2.50	0	2.50	0	0.07	0	4.71	4.71	5	0	2.02
PIN	61	62	63	64								
ACTIVE	2.66	0	0	0								
STATIC	2.41	0	0	0								

## IC401 LA9241ML

PIN	1	2	3	4	5	6	7	8	9	10	11	12
ACTIVE	2.67	2.65	2.67	2.67	2.67	2.66	2.67	2.67	2.65	2.66	2.67	2.7
STATIC	2.53	2.53	2.53	2.56	2.53	2.55	2.55	2.55	2.54	2.52	2.55	2.54
PIN	13	14	15	16	17	18	19	20	21	22	23	24
ACTIVE	2.67	2.7	2.72	2.69	2.67	2.69	2.73	2.69	0	2.67	2.67	2.65
STATIC	2.55	2.54	2.54	2.54	2.55	2.55	2.54	2.54	2.54	0	2.53	2.54
PIN	25	26	27	28	29	30	31	32	33	34	35	36
ACTIVE	2.69	2.75	2.75	2.68	2.75	2.45	2.45	0	0	5.22	0	1.4
STATIC	2.56	2.56	2.5	2.55	2.55	2.33	2.34	0	0	5.01	5.01	0.04
PIN	37	38	39	40	41	42	43	44	45	46	47	48
ACTIVE	0	0	0	0.25	2.45	2.54	2.54	2.63	0	2.64	2.65	0
STATIC	0.01	5	0	0	1.61	2.45	2.41	2.53	0	2.54	2.55	0
PIN	49	50	51	52	53	54	55	56	57	58	59	60
ACTIVE	0	2.54	4.77	4.86	0	5.11	0.16	5.2	2.64	2.64	2.59	2.57
STATIC	0	2.44	4.71	4.71	0.07	0.03	0.14	5.01	2.54	2.56	0.98	0.99
PIN	61	62	63	64								
ACTIVE	2.3	3.86	0.19	5.18								
STATIC	2.24	4.35	0	5.02								

## VOLTAGE CHART-2/4

### IC203 M62495AFP

PIN	1	2	3	4	5	6	7	8	9	10	11	12
CD	2.54	2.55	2.55	0.7	2.54	2.56	2.55	2.55	2.55	2.55	2.56	5.08
TAPE	2.55	2.55	2.55	0.8	2.55	2.56	2.55	2.56	2.55	2.55	2.56	5.09
TUNER	2.56	2.56	2.56	2.56	2.57	2.57	2.57	2.57	2.56	2.57	2.57	5.11
PIN	13	14	15	16	17	18	19	20	21	22	23	24
CD	2.82	0	2.55	2.55	2.55	2.55	2.57	2.54	0.7	2.54	2.55	2.54
TAPE	2.83	0	2.55	2.55	2.56	2.55	2.57	2.55	0.58	2.06	2.56	2.55
TUNER	2.83	0	2.56	2.56	2.57	2.56	2.58	2.57	0.69	2.56	2.56	2.56

### IC001 LA1828

PIN	1	2	3	4	5	6	7	8	9	10	11	12
FM	0.93	0	4.73	4.73	4.68	1.28	1.24	1.35	1.35	4.22	0.01	4.80
AM	0	0	4.88	4.88	4.88	0.28	1.24	1.36	1.36	0	3.20	4.88
PIN	13	14	15	16	17	18	19	20	21	22	23	24
FM	0.59	1.27	1.27	0	5.30	4.80	0.01	4.80	4.80	4.80	1.28	0.33
AM	0.30	1.25	1.25	0	5.30	4.88	0	4.88	4.88	4.88	1.26	1.26

### IC801 BA4560N

PIN	1	2	3	4	5	6	7	8
TAPE	3.37	3.37	3.34	0	3.34	3.37	3.37	6.83
REC	3.38	3.39	3.35	0	3.35	3.39	3.38	6.82

### IC202 TA8227

PIN	1	2	3	4	5	6	7	8	9	10	11	12
ACTIVE	12.31	6.57	12.00	0	0.56	0	0	0.56	6.65	12.00	6.46	13.10
STATIC	11.50	6.10	1.50	0	0.56	0	0	0.56	6.41	1.42	6.20	12.50

# VOLTAGE CHART-3/4

## IC601 LC865516A

PIN	1	2	3	4	5	6	7	8	9	10	11	12
TAPE	0.12	0.12	0.12	0.07	4.65	1.59	0	2.52	0	2.11	2.25	4.8
TUNER	0.12	0.11	0.11	0.03	4.7	1.64	0	2.58	0.02	4.40	4.9	4.9
CD	0.10	0.09	8.53	0.26	4.61	1.58	0	2.49	0	2.09	2.23	4.76
PIN	13	14	15	16	17	18	19	20	21	22	23	24
TAPE	4.99	4.99	0.9	0	0.03	1.2	4.8	0.03	5.23	0	0.04	0
TUNER	5.1	5.1	5.1	0	0.02	0	4.9	0.03	5.34	0	0.05	0
CD	5.06	5.06	5.07	4.84	0	0	4.76	0.01	5.2	0.01	0.01	0
PIN	25	26	27	28	29	30	31	32	33	34	35	36
TAPE	4.77	0.06	0.06	4.76	0	0.06	0.06	0.26	0.07	0.05	0.08	0.05
TUNER	4.86	0.05	4.9	4.87	0.06	0.06	0.06	0.16	0.06	0.05	0.09	0.05
CD	4.74	4.75	0.04	4.71	0	0.04	0	0.24	0.04	4.75	1.94	4.75
PIN	37	38	39	40	41	42	43	44	45	46	47	48
TAPE	0.05	0.06	0.05	0.05	4.79	0.34	9.54	0.12	9.55	0.12	0.12	2.3
TUNER	0.05	0.06	0.05	4.86	0.05	2.82	9.44	0.12	9.11	0.12	0.12	2.3
CD	0.03	0.04	4.72	0.03	0.03	2.39	6.11	0.1	0.11	0.1	0.1	2.2

NO.	Q002			Q003			Q004		
PIN	e	c	b	e	c	b	e	c	b
FM	4.82	8.00	5.52	5.53	5.52	4.85	0	4.06	2.98
AM	4.90	8.00	5.58	5.59	5.59	4.90	2.30	4.12	3.03

NO.	Q001		
PIN	e	c	b
FM	2.22	4.07	2.95
AM	2.21	4.06	2.95

NO.	Q403			Q406			Q407			Q408		
PIN	e	c	b	e	c	b	e	c	b	e	c	b
ACTIVE	2.56	2.56	0	0	4.6	0	4.6	2.57	2.56	4.6	2.57	2.56
STATIC	2.56	2.56	0	0	4.6	0	4.58	2.55	2.55	4.58	.55	2.55

NO.	Q401			Q402			Q491			Q492		
PIN	e	c	b	e	c	b	e	c	b	e	c	b
ACTIVE	4.46	2.11	3.76	7.87	5.3	7.17	7.91	7.88	7.15	0	0.14	4.41
STATIC	4.99	1.56	4.35	7.97	5.15	7.28	7.98	7.97	7.23	0	0.14	4.41

NO.	Q310			Q301			Q302			Q303		
PIN	e	c	b	e	c	b	e	c	b	e	c	b
ACTIVE	5.55	10.45	6.25	12.2	11.4	11.5	11.5	11.4	10.9	0	0	4.57
STATIC	5.56	10.83	6.26	12.66	12	11.99	11.99	12	11.32	0	0	4.57

NO.	Q305			Q244			Q243			Q321		
PIN	e	c	b	e	c	b	e	c	b	e	c	b
ACTIVE	7.23	10.56	7.85	0	0	0.12	0	0	0.12	0	0.01	0.6
STATIC	7.26	11.23	7.87	0	0	0.64	0	0	0.64	0	0.02	0.7

## VOLTAGE CHART-4/4

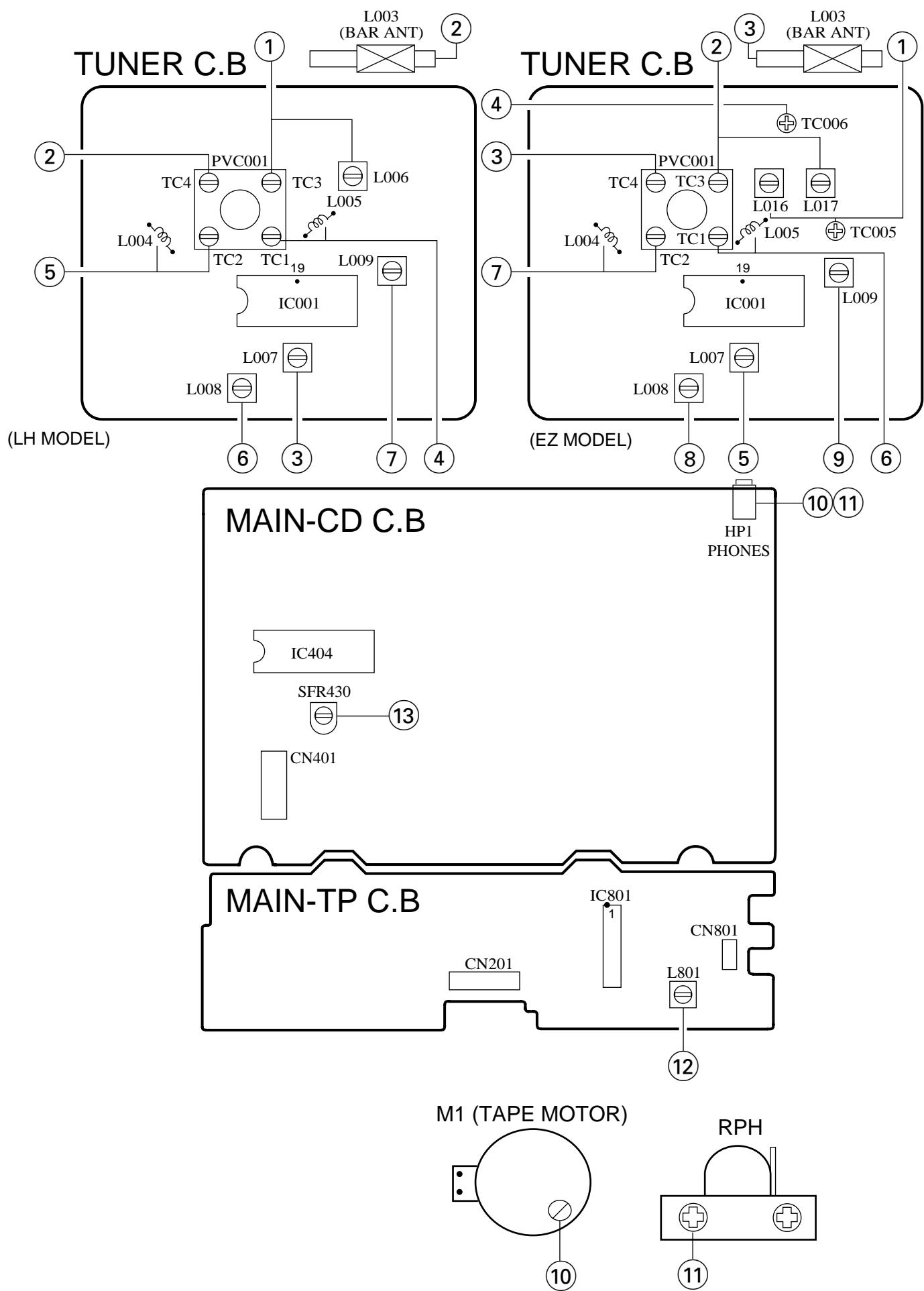
NO.	Q306			Q304		
PIN	e	c	b	e	c	b
ACTIVE	5.08	7.94	10.75	11.38	7.94	10.75
STATIC	5.09	7.98	5.81	11.97	7.98	11.34

NO.	Q841			Q810			Q801			Q701		
PIN	e	c	b	e	c	b	e	c	b	e	c	b
TAPE	0	0.72	0	3.36	0.05	0.13	0	0	0	0	0	0
REC	0	0.01	5.73	3.38	13.85	0.13	1.64	5.90	2.31	0.14	1.15	0.78

NO.	Q702			Q703		
PIN	e	c	b	e	c	b
TAPE	0	0	0	0	0	0
REC	0	0.03	0.17	0.04	5.58	0.05

NO.	Q606			Q604			Q607		
PIN	e	c	b	e	c	b	e	c	b
TAPE	0.02	6.56	0.05	0.02	6.51	0.06	0.02	6.55	0.05
TUNER	0.02	0.04	4.46	0.02	6.51	0.06	0.02	6.54	0.05
CD	0.02	6.55	0.06	0.02	6.51	0.07	0.02	0.05	4.35

## ELECTRICAL ADJUSTMENT-1/2



## ELECTRICAL ADJUSTMENT-2/2

### < TUNER SECTION >

#### (LH MODEL)

##### 1. AM Freq. Range Adjustment

L006 ..... 517kHz  
TC003 ..... 1750kHz

##### 2. AM Tracking Adjustment

L003 ..... 600kHz  
TC004 ..... 1400kHz

##### 3. AM IF Adjustment

Settings: • Test point: IC001 (LA1828) 19PIN  
• Adjustment location: L007  
Method: Adjust L007 so that the output level at 1400kHz becomes maximum.

##### 4. FM Freq. Range Adjustment

L005 ..... 87.0MHz  
TC001 ..... 109.0MHz

##### 5. FM Tracking Adjustment

L004 ..... 90.0MHz  
TC002 ..... 106.0MHz

##### 6. FM IF Adjustment

Settings: • Test point: IC001 (LA1828) 19PIN  
• Adjustment location: L008  
Method: Adjust L008 so that the output level at 98.0MHz becomes balanced.

##### 7. FM Balance Adjustment

Settings: • Test point: IC001 (LA1828) 19PIN  
• Adjustment location: L009  
Method: Adjust L009 so that the output level at 98.0MHz becomes balanced.

#### (EZ MODEL)

##### 1. LW Freq. Range Adjustment

L016 ..... 145kHz  
TC005 ..... 295kHz

##### 2. MW Freq. Range Adjustment

L017 ..... 515kHz  
TC003 ..... 1635kHz

##### 3. MW Tracking Adjustment

L003 ..... 600kHz  
TC004 ..... 1400kHz

##### 4. LW Tracking Adjustment

TC006 ..... 288kHz

##### 5. AM IF Adjustment

Settings: • Test point: IC001 (LA1828) 19PIN  
• Adjustment location: L007  
Method: Adjust L007 so that the output level at 1400kHz becomes maximum.

##### 6. FM Freq. Range Adjustment

L005 ..... 87.35MHz  
TC001 ..... 108.25MHz

##### 7. FM Tracking Adjustment

L004 ..... 88.0MHz  
TC002 ..... 108.0MHz

##### 8. FM IF Adjustment

Settings: • Test point: IC001 (LA1828) 19PIN  
• Adjustment location: L008  
Method: Adjust L008 so that the output level at 98.0MHz becomes balanced.

##### 9. FM Balance Adjustment

Settings: • Test point: IC001 (LA1828) 19PIN  
• Adjustment location: L009  
Method: Adjust L009 so that the output level at 98.0MHz becomes balanced.

### < DECK SECTION >

##### 10. Tape Speed Adjustment

Settings : • Test tape : TTA-100  
• Test point : HP1 (PHONES jack)  
• Adjustment location : SFR of deck motor  
Method : Play back the test tape and adjust SFR so that the frequency counter reads 3000Hz +90Hz, -60Hz.

##### 11. Head Azimuth Adjustment

Settings : • Test tape : TTA-320  
• Test point : HP1 (PHONES jack)  
• Adjustment location : Azimuth adjustment screw  
Method : Play back the 8kHz signal of the test tape and adjust screw so that the output becomes maximum.

##### 12. Bias frequency Adjustment

L801 ..... 85kHz±2kHz

### < CD SECTION >

##### 13. FE Balance Adjustment

Settings : • Test point : IC401 PIN58 (VR), IC401 PIN 20 (FE)  
• Adjustment location : SFR430  
Method : Playback the disc and adjust SFR430 so that the test point voltage becomes 0~10mV.

# IC DESCRIPTION-1/3 (LA9241ML)-1/2

Pin No.	Pin Name	I/O	Description
1	FIN2	I	Pin to which external pickup photo diode is connected. RF signal is created by adding with the FIN1 pin signal. FE signal is created by subtracting from the FIN1 pin signal.
2	FIN1	I	Pin to which external pickup photo diode is connected.
3	E	I	Pin to which external pickup photo diode is connected. TE signal is created by subtracting from the F pin signal.
4	F	I	Pin to which external pickup photo diode is connected.
5	TB	I	DC component of the TE signal is input.
6	TE-	I	Pin to which external resistor setting the TE signal gain is connected between the TE pin.
7	TE	O	TE signal output pin.
8	TESI	I	TES “Track Error Sense” comparator input pin. TE signal is passed through a band-pass filter then input.
9	SCI	I	Shock detection signal input pin.
10	TH	I	Tracking gain time constant setting pin.
11	TA	O	TA amplifier output pin.
12	TD-	I	Pin to which external tracking phase compensation constants are connected between the TD and VR pins.
13	TD	I	Tracking phase compensation setting pin.
14	JP	I	Tracking jump signal (kick pulse) amplitude setting pin.
15	TO	O	Tracking control signal output pin.
16	FD	O	Focusing control signal output pin.
17	FD-	I	Pin to which external focusing phase compensation constants are connected between the FD and FA pins.
18	FA	I	Pin to which external focusing phase compensation constants are connected between the FD- and FA- pins.
19	FA-	I	Pin to which external focusing phase compensation constants are connected between the FA and FE pins.
20	FE	O	FE signal output pin.
21	FE-	I	Pin to which external FE signal gain setting resistor is connected between the FE pin.
22	AGND	—	Analog signal GND.
23	SP	O	Signal ended output of the CV+and CV- pin input signal.
24	SPI	I	Spindle amp input.
25	SPG	I	Pin to which external spindle gain setting resistor in 12 cm mode is connected. (Not connected)
26	SP-	I	Pin to which external spindle phase compensation constants are connected together with SPD pin.
27	SPD	O	Spindle control signal output pin.
28	SLEQ	I	Pin to which external sled phase compensation constants are connected.
29	SLD	O	Sled control signal output pin.
30, 31	SL-, SL+	I	Sled advance signal input pin from microprocessor.
32, 33	JP-, JP+	I	Tracking jump signal input pin from DSP.
34	TGL	I	Tracking gain control signal input from DSP. Low gain when TGL = H.
35	TOFF	I	Tracking off control signal input pin from DSP. Off when TOFF = H.

# IC DESCRIPTION-1/3 (LA9241ML)-2/2

Pin No.	Pin Name	I/O	Description
36	TES	O	Pin from which TES signal is output to DSP.
37	HFL	O	“High Frequency Level” is used to judge whether the main beam position is on top of bit or on top of mirror.
38	SLOF	I	Sled servo off control input pin.
39, 40	CV-, CV+	I	CLV error signal input pin from DSP.
41	RFSM	O	RF output pin.
42	RFS-	I	RF gain setting and EFM signal 3T compensation constant setting pin together with RFSM pin.
43	SLC	O	“Slice Level Control” is the output pin which controls the RF signal data slice level by DSP.
44	SLI	I	Input pin which control the data slice level by the DSP.
45	DGND	—	Digital system GND.
46	FSC	O	Output pin to which external focus search smoothing capacitor is connected.
47	TBC	I	“Tracking Balance Control” EF balance variable range setting pin.
48	NC	—	Not connected.
49	DEF	O	Disc defect detector output pin.
50	CLK	I	Reference clock input pin. 4.23 MHz of the DSP is input.
51	CL	I	Microprocessor command clock input pin.
52	DAT	I	Microprocessor command data input pin.
53	CE	I	Microprocessor command chip enable input pin.
54	DRF	O	“Detect RF” RF level detector output.
55	FSS	I	“Focus Search Select” focus search mode ( $\pm$ search/+ search) select pin. (Not connected)
56	VCC2	—	Servo system and digital system Vcc pin.
57	REFI	—	Pin to which external bypass capacitor for reference voltage is connected.
58	VR	O	Reference voltage output pin.
59	LF2	I	Disc defect detector time constant setting pin.
60	PH1	I	Pin to which external capacitor for RF signal peak holding is connected.
61	BH1	I	Pin to which external capacitor for RF signal bottom holding is connected.
62	LDD	O	APC circuit output pin.
63	LDS	I	APC circuit input pin.
64	VCC1	—	RF system Vcc pin.

## IC DESCRIPTION-2/3 (LC78622NE)-1/2

Pin No.	Pin Name	I/O	Description	
1	DEFI	I	Defect sense signal (DEF) input pin. (Connect to 0V when not used).	
2	TAI	I	For PLL.	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
3	PDO	O		Phase comparator output pin to control external VCO.
4	VVSS	—		GND pin for built-in VCO. Be sure to connect to 0V.
5	ISET	I		Pin to which external resistor adjusting the PD0 output current.
6	VVDD	—		Power supply pin for built-in VCO.
7	FR	I		Pin for VCO frequency range adjustment.
8	VSS	—		Digital system GND. Be sure to connect to 0V.
9	EFMO	O	For slice level control.	EFM signal output pin.
10	EFMIN	I		EFM signal input pin.
11	T2	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
12, 13	CLV+, CLK-	O	Disc motor control output. Three level output is possible using command.	
14	V/P	O	Rough servo or phase control automatic selection monitoring output pin. Rough servo at H. Phase servo at L.	
15	HFL	I	Track detect signal input pin. Schmidt input.	
16	TES	I	Tracking error signal input pin. Schmidt input.	
17	TOFF	O	Tracking OFF output pin.	
18	TOL	O	Tracking gain selection output pin. Gain boost at L.	
19, 20	JP+, JP-	O	Track jump control signal output pin. Three level output is possible using command.	
21	PCK	O	EFM data playback clock monitoring pin 4.3218 MHz when phase is locked in. (Not connected)	
22	FSEQ	O	Sync signal detection output pin. H when the sync signal which is detected from EFM signal and thesync signal which is internally generated agree. (Not connected)	
23	VDD	—	Digital system power supply pin.	
24	SL+	O	Moves the sled to outer circumference.	
25	SL-	O	Moves the sled to inner circumference.	
26	—	—	Not connected.	
27	PUIN	I	CD pickup inner switch detection.	
28	RW	O	Read, wright signal.	
29	EMPH	O	De-emphasis monitor output pin. De-emphasis disc is being played back at H. (Not connected)	
30	C2F	O	C2 flag output pin. (Not connected)	
31	DOUT	O	DIGITAL OUT output pin. (EIAJ format). (Not connected)	
32, 33	T3, T4	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
34	N.C.	—	Not connected. Set the pin to open.	
35	MUTEL	O	L-channel 1-bit DAC.	L-channel mute output pin. (Not connected)
36	LVDD	—		L-channel power supply pin.
37	LCHO	O		L-channel output pin.
38	LVSS	—		L-channel GND. Be sure to connect to 0V.
39	RVSS	—	R-channel 1-bit DAC.	R-channel GND. Be sure to connect to 0V.
40	RCHO	O		R-channel output pin.
41	RVDD	—		R-channel power supply pin.
42	MUTER	O		R-channel mute output pin. (Not connected)

## IC DESCRIPTION-2/3 (LC78622NE)-2/2

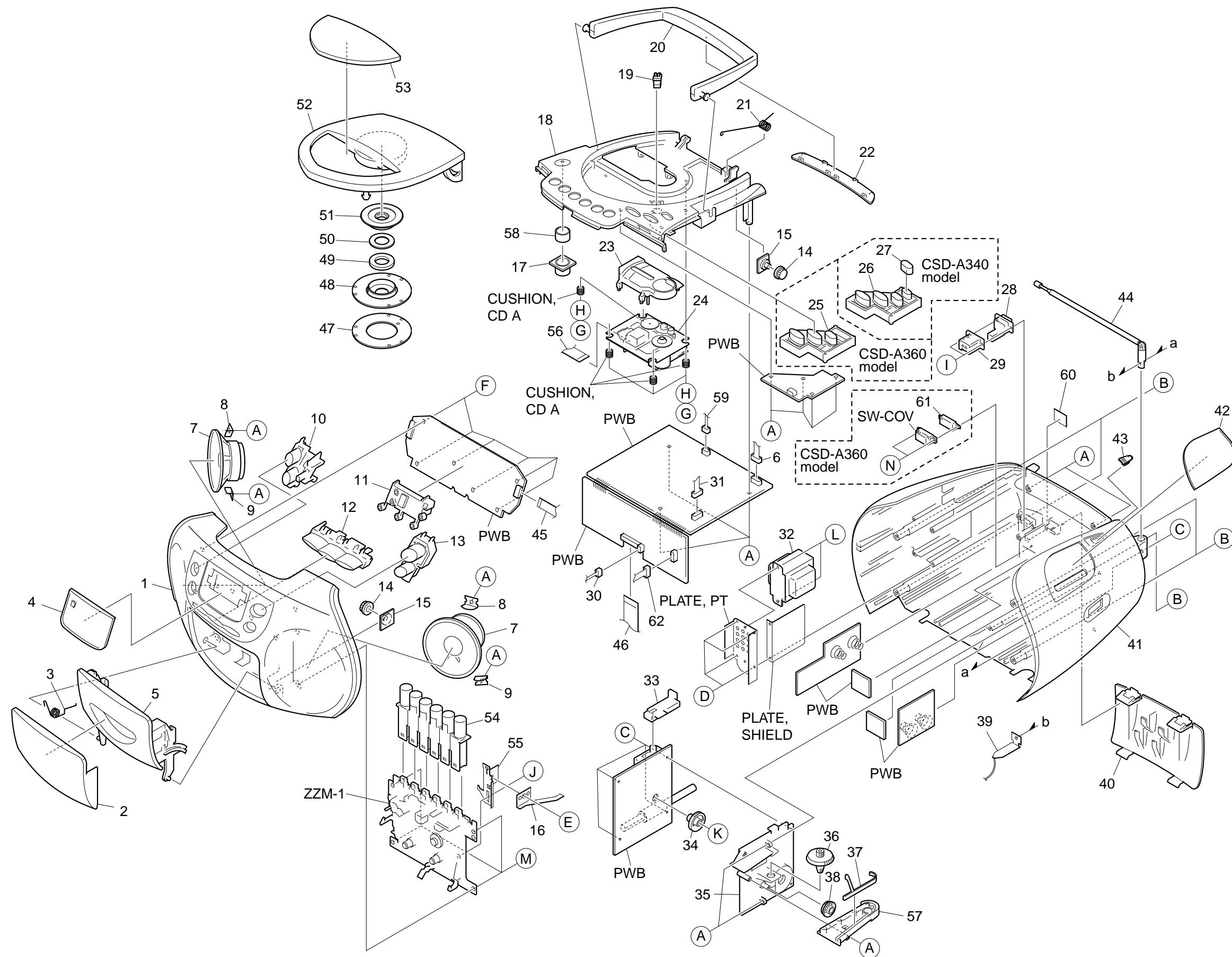
Pin No.	Pin Name	I/O	Description
43	XVDD	—	Crystal oscillator power supply pin.
44	XOUT	O	Pin to which external 16.9344 MHz crystal oscillator is connected.
45	XIN	I	
46	XVSS	—	Crystal oscillator GND pin. Be sure to connect to 0V.
47	SBSY	O	Subcode block sync signal output pin. (Not connected)
48	EFLG	O	C1, C2, single and dual correction monitoring pin. (Not connected)
49	PW	O	Subcode P, Q, R, S, T, U and W output pin. (Not connected)
50	SFSY	O	Subcode frame sync signal output pin. Falls down when subcode enters standby. (Not connected)
51	SBCK	I	Subcode read clock input pin. Schmidt input. (Be sure to connect to 0V when not in use.)
52	FSX	O	Pin outputting the 7.35 kHz sync signal which is generated by dividing frequency of crystal oscillator. (Not connected)
53	WRQ	O	Subcode Q output standby output pin.
54	RWC	I	Read/write control input pin. Schmidt input.
55	SQOUT	O	Subcode Q output pin.
56	COIN	I	Command input pin from microprocessor.
57	CQCK	I	Command input read clock or subcode read input clock from SQOUT pin
58	RES	I	LC78622 reset input pin. Set this pin to L once when the main power is turned on.
59	T11	O	Test signal output pin. Use this pin as open (normally L output). (Not connected)
60	16M	O	16.9344 MHz output pin. (Not connected)
61	4.2M	O	4.2336 MHz output pin.
62	T5	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
63	CS	I	Chip select signal input pin with built-in pull-down resistor. Be sure to connect to 0V while it is not controlling.
64	T1	I	Test signal input pin without built-in pull-down resistor. Be sure to connect to 0V.

# IC DESCRIPTION-3/3 (LC865516A-5T66)-1/2

Pin No.	Pin Name	I/O	Description
1	SEG E	O	SEG E control.
2	SEG F	O	SEG F control.
3	SEG G	O	SEG G control.
4	NC	—	Not connected.
5	RESET	I	Micro processor reset input
6	XT1 (IN)	I	Connected to an external 32.768 kHz crystal oscillator.
7	NC	—	Not connected.
8	XT2 (OUT)	O	Connected to an external 32.768 kHz crystal oscillator.
9	GND	—	GND.
10	CF1 (IN)	I	Connected to an external 5.76 MHz ceramic filter.
11	CF2 (OUT)	O	Connected to an external 5.76 MHz ceramic filter.
12	VDD	—	Microprocessor power supply (+5V).
13	KEY0	I	Key AD input. (AD)
14	KEY1	I	Key AD input. (AD)
15	MOTOR	I	Deck status input. (AD)
16	CD SW	I	CD door switch status input.
17	SHIFT	O	Main clock shift output.
18	NC	—	Not connected.
19	BASS LED	O	BASS LED ON/OFF control output. (Not connected)
20	Q LED	O	Q sound LED ON/OFF control output.
21	SFT LED	—	Not connected.
22	DRF	I	CD RF level detection input.
23	WRQ	I	CD subcode Q standby input.
24	NC	—	Not connected.
25	RMT-IN	—	Remote control input.
26	CD ON	O	CD power control output.
27	TU ON	O	TU power control output.
28	P ON	O	The main power supply control output.
29	NC	—	Not connected.
30	BEAT	O	Beat control.
31	MUTE	O	Main mute output.
32	DIGIT ON	O	7-segment LED power supply control output.
33	RP LED	O	REPEAT LED ON/OFF control output.
34	COIN	O	CD command output.
35	SQOUT	I	CD subcode Q input.
36	CQCK	O	CD command/CLK for subcode.
37	RWC	O	CD read/write control output.
38	DATA	O	Data output to M62349FP.
39	CD-LED	O	LED ON/OFF control output for the CD function.
40	TU-LED	O	LED ON/OFF control output for the TU function.
41	TA-LED	O	LED ON/OFF control output for the TA function. (Not connected)

# IC DESCRIPTION-3/3 (LC865516A-5T66)-2/2

Pin No.	Pin Name	I/O	Description
42	NC	—	Not connected.
43	<u>SEG DP</u>	O	SEG DP control.
44	<u>SEG A</u>	O	SEG A control.
45	<u>SEG B</u>	O	SEG B control.
46	<u>SEG C</u>	O	SEG C control.
47	<u>SEG D</u>	O	SEG D control.
48	NC	—	Not connected.



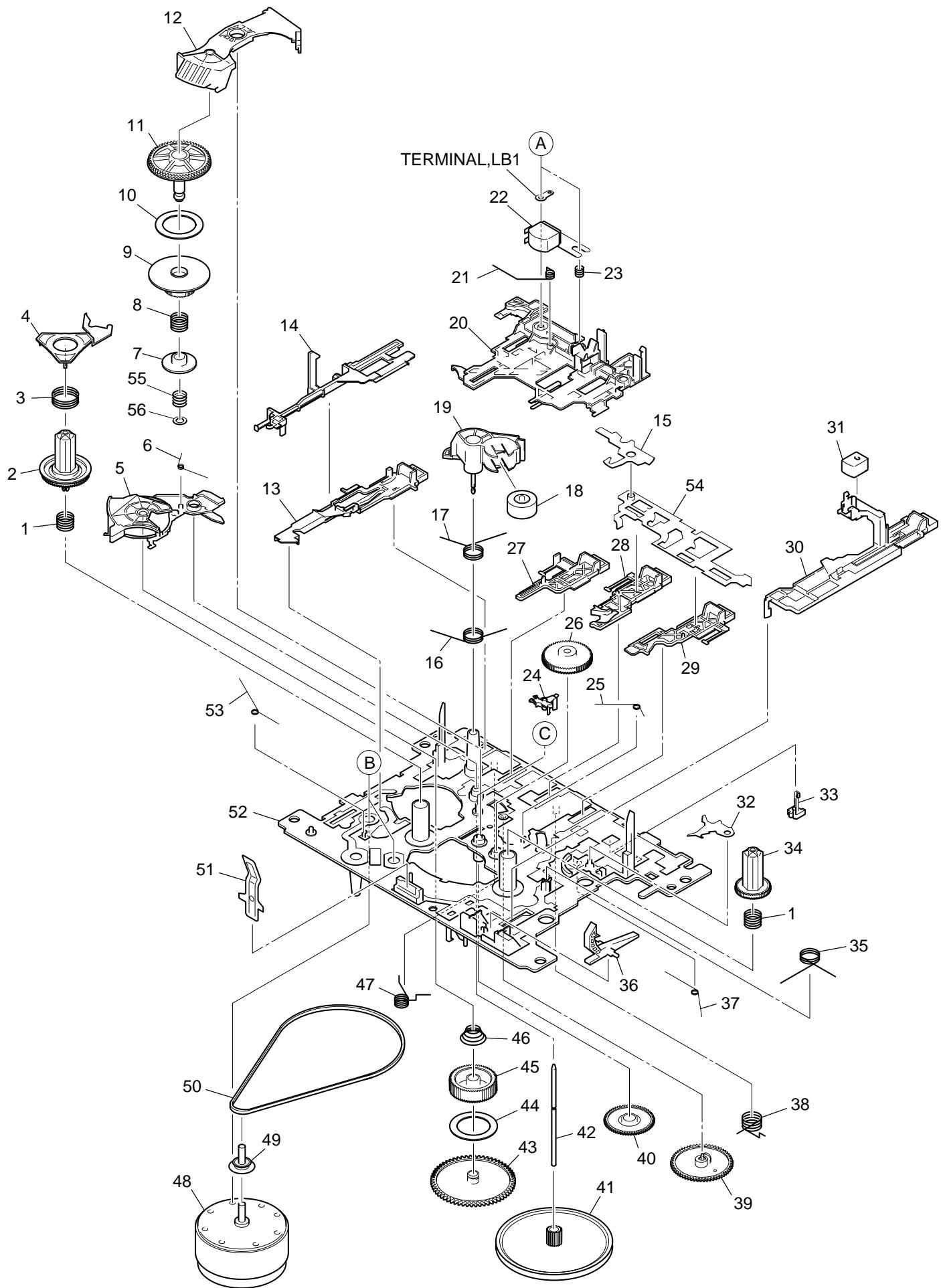
# MECHANICAL PARTS LIST-1/1

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8B-CDB-142-010	CABI,ASSY FR EX (D)<6LHDC>		32	8A-CD8-604-010	PT,H 2.5W<EXCEPT 4EZLC>	
1	8B-CDB-140-010	CABI,ASSY FR EX<6LHDC>		33	8B-CDB-202-010	LEVER,BAND	
1	8B-CDB-143-010	CABI,ASSY FR EX (G)<6LHDC>		34	8B-CDB-205-010	DRUM,DIAL	
1	8B-CDB-141-010	CABI,ASSY FR EX (L)<6LHDC,4EZLC>		35	8B-CDB-203-010	CHAS,TU A	
2	8B-CDB-008-010	WINDOW,CASS<6LHDC>		36	8B-CDB-020-010	KNOB,RTRY TU	
2	8B-CDB-070-010	WINDOW,CASS (D)<6LHDC>		37	8B-CDB-021-010	POINTER,TU	
2	8B-CDB-085-010	WINDOW,CASS (G)<6LHDC>		38	8B-CDB-206-010	GEAR, IDLER	
2	8B-CDB-057-010	WINDOW,CASS (L)<6LHDC,4EZLC>		39	8B-CDB-211-010	HLDR,ANT	
3	8B-CDB-207-010	SPR-T,CASS		40	8B-CDB-004-010	LID,BATT	
4	8B-CDB-029-010	WINDOW,DISP EX<6LHHC,6LHLC>		41	8B-CDB-025-010	CABI,REAR EZ<4EZLC>	
4	8B-CDB-073-010	WINDOW,DISP EX (D)<6LHDC>		41	8B-CDB-024-010	CABI,REAR U<EXCEPT 4EZLC>	
4	8B-CDB-088-010	WINDOW,DISP EX (G)<6LHDC>		42	8B-CDB-031-010	WINDOW,DIAL EZ<4EZLC>	
4	8B-CDB-042-010	WINDOW,DISP W/O Q EX<4EZLC>		42	8B-CDB-030-010	WINDOW,DIAL U<EXCEPT 4EZLC>	
5	8B-CDB-007-010	BOX,CASS		43	8B-CDB-019-010	KNOB,SL BAND	
6	8B-CDB-615-010	CONN ASSY,4P V SP		44	87-A91-857-010	ANT,ROD 5SEC709	
7	8A-CD8-612-010	SPKR,77 70HM 6W		45	8B-CDB-618-010	FF-CABLE,8P 1MM 350MM	
8	8B-CDB-209-010	HLDR,SPKR A		46	8B-CDB-617-010	FF-CABLE,16P 1MM 300MM	
9	8B-CDB-210-010	HLDR,SPKR B		47	8Z-CH4-212-110	RING,CHUCK	
10	8B-CDB-017-010	KEY,SKIP		48	8Z-CH4-211-110	BASE,CHUCK	
11	8B-CDB-201-010	HLDR,DISP		49	87-036-368-010	MAGNET	
12	8B-CDB-015-010	KEY,FUNC<6LHHC>		50	84-CD5-217-010	PLATE,MAGNET	
12	8B-CDB-078-010	KEY, FUNC (D)<6LHDC>		51	8Z-CH4-225-210	HLDR,CHUCK A(S)	
12	8B-CDB-093-010	KEY, FUNC (G)<6LHGC>		52	8B-CDB-026-010	BOX,CD EX	
12	8B-CDB-062-010	KEY, FUNC (L)<6LHLC,4EZLC>		53	8B-CDB-009-010	WINDOW,CD<6LHHC>	
13	8B-CDB-016-010	KEY,PLAY		53	8B-CDB-071-010	WINDOW,CD (D)<6LHDC>	
14	84-CD5-215-010	GEAR		53	8B-CDB-086-010	WINDOW,CD (G)<6LHGC>	
15	84-CD5-216-010	BRACKET		53	8B-CDB-058-010	WINDOW,CD (L)<6LHLC,4EZLC>	
16	8B-CDB-212-010	SPR-P,REC		54	8B-CDB-014-010	KEY,CASS SET<6LHHC>	
17	8Z-CS3-215-010	HLDR,MIC		54	8B-CDB-077-010	KEY,CASS SET (D)<6LHDC>	
18	8B-CDB-081-010	CHAS,CD (G)<6LHGC>		54	8B-CDB-092-010	KEY,CASS SET (G)<6LHGC>	
18	8B-CDB-027-010	CHAS,CD EX<6LHHC>		54	8B-CDB-061-010	KEY,CASS SET (L)<6LHLC,4EZLC>	
18	8B-CDB-067-010	CHAS,CD EX (D)<6LHDC>		55	8A-CD9-224-010	HLDR,REC ZZM1	
18	8B-CDB-054-010	CHAS,CD EX (L)<6LHLC>		56	8A-CD9-621-010	FF-CABLE, 16P CD-RF	
18	8B-CDB-056-010	CHAS,CD W/O Q EX (L)<4EZLC>		57	8B-CDB-204-010	CHAS,TU B<EXCEPT 4EZLC>	
19	87-036-389-010	SW, PUSH 1-1-1 R8120125		58	84-TM1-639-010	ECM,KUC3523	
20	8B-CDB-012-010	HANDL,FR<6LHHC>		59	8A-CD9-626-010	CONN ASSY,2P DOOR	
20	8B-CDB-075-010	HANDL,FR (D)<6LHDC>		60	8B-CDB-033-010	PLATE,SW (PC)<4EZLC>	
20	8B-CDB-090-010	HANDL,FR (G)<6LHGC>		61	87-A91-369-010	SW,AC SL 2 2 2 SDKGA41700<EXCEPT 4EZLC>	
20	8B-CDB-059-010	HANDL,FR (L)<6LHLC,4EZLC>		62	8A-CD9-630-010	CONN ASSY,4P RPH	
21	8B-CDB-208-010	SPR-T,CD		A	87-254-097-410	U+3-12 CR	
22	8B-CDB-013-010	HANDL,REAR<6LHHC>		B	87-B10-242-010	UT2+3-30 W/O CR	
22	8B-CDB-076-010	HANDL,REAR (D)<6LHDC>		C	87-741-095-410	UT2+3-8 GLD	
22	8B-CDB-091-010	HANDL,REAR (G)<6LHGC>		D	87-B10-269-010	UT2+3-12 W/O CR	
22	8B-CDB-060-010	HANDL,REAR (L)<6LHLC,4EZLC>		E	87-571-094-410	TAPPING SCREW, VIT+3-6 (GLD)	
23	8Z-CDB-169-110	PANEL,CD SANYO		F	87-B10-239-010	QT2+3-8 W/O CR	
24	M8-ZZK-E90-070	DA11T3C		G	87-342-074-010	UT2+2.6-8	
25	8B-CDB-043-010	KEY,VOL W/O Q<4EZLC>		H	87-WA5-253-010	W,3.3-10-0.8	
26	8B-CDB-018-010	KEY,VOL<EXCEPT 4EZLC>		I	87-353-076-210	VT2+2.6-12	
27	8B-CDB-022-010	KEY,Q SOUND<6LHHC,6LHLC>		J	8A-CDA-222-010	S-SCREW,CASS+2.6-4	
27	8B-CDB-079-010	KEY,Q SOUND (D)<6LHDC>		K	87-251-073-410	SCREW,U+2.6-6	
27	8B-CDB-094-010	KEY,Q SOUND (G)<6LHGC>		L	87-067-566-010	TAPPING SCREW, VFTT+3-6	
28	87-A60-178-010	JACK,AC E W/SW		M	87-741-096-410	UT2+3-10	
29	8Z-CD5-634-010	COVER,AC SOCKET		N	87-352-075-210	UT2+2.6-10<EXCEPT 4EZLC>	
30	8B-CDB-614-010	CONN ASSY,2P V MIC					
31	8A-CD9-631-010	CONN ASSY,4P TP-ME					
32	8A-CD8-603-010	PT,E 2.5W<4EZLC>					

**COLOR NAME TABLE**

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink
LA	Aqua Blue	GL	Light Green		

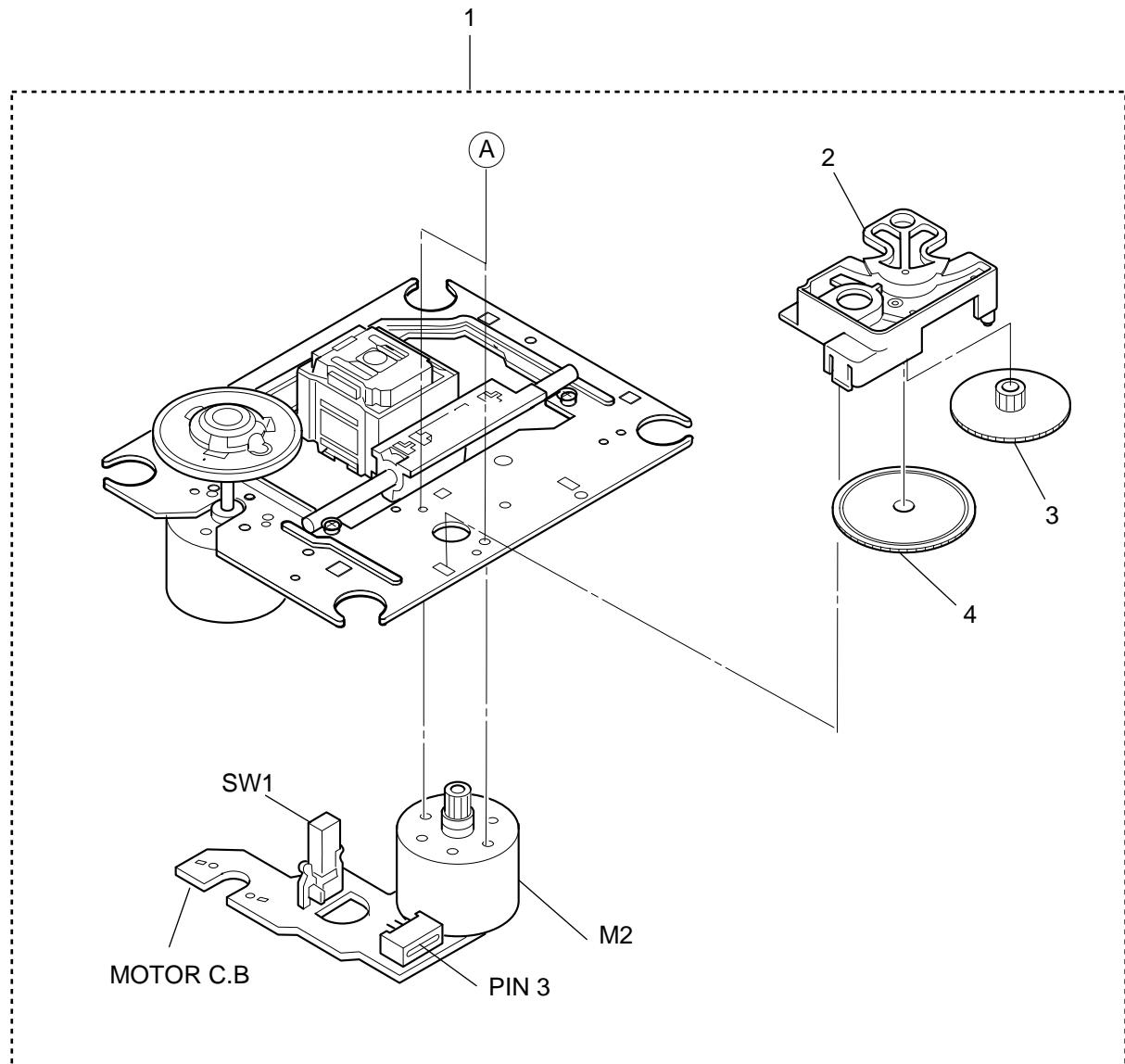
TAPE MECHANISM EXPLODED VIEW-1/1 (ZZM-1 AR2NC)



# TAPE MECHANISM PARTS LIST-1/1 (ZZM-1 AR2NC)

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM1-254-310	SPR-C, REEL R		31	87-A91-819-010	HEAD, EH 2NSS-2200	
2	8Z-ZM1-225-110	GEAR, REEL R		32	8Z-ZM1-215-010	LEVER, REC LOCK	
3	8Z-ZM1-253-210	SPR-C, AUTO SENSOR		33	87-A91-492-010	SW, LEAF MSW18560	
4	8Z-ZM1-217-110	LEVER, AUTO SENSOR		34	8Z-ZM1-226-010	GEAR, REEL L	
5	8Z-ZM1-212-110	LEVER, T-UP		35	8Z-ZM1-241-210	SPR-T, PLAY	
6	8Z-ZM1-245-310	SPR-T, AUTO		36	8Z-ZM1-220-110	LEVER, REC SENSOR	
7	8Z-ZM1-236-010	CLR, SLIP FF/REW		37	8Z-ZM1-249-210	SPR-T, FR	
8	8Z-ZM1-252-110	SPR-C, FF/REW		38	8Z-ZM1-242-310	SPR-T, FF/REW	
9	8Z-ZM1-230-010	GEAR, SLIP FF/REW A		39	8Z-ZM3-244-010	GEAR, CAM TD20	
10	8Z-ZM1-269-010	FELT, FF/REW 2		40	8Z-ZM1-232-010	GEAR, IDL FF/REW	
11	8Z-ZM1-238-110	GEAR, SLIP FF/REW B 2		41	8Z-ZM3-228-110	FLY-WHL, M3	
12	8Z-ZM1-237-110	LEVER, FF/REW 2		42	8Z-ZM1-267-110	SHAFT, CAPSTAN 2	
13	8Z-ZM1-283-010	LEVER, PAUSE 2		43	8Z-ZM1-228-010	GEAR, SLIP T-UP B	
14	8Z-ZM1-222-010	LEVER, E-LOCK M		44	8Z-ZM1-265-010	FELT, T-UP	
15	8Z-ZM1-219-010	LEVER, E-OPEN		45	8Z-ZM1-227-010	GEAR, SLIP T-UP A	
16	8Z-ZM1-244-110	SPR-T, T-UP		46	8Z-ZM1-251-210	SPR-C, T-UP SLIP	
17	8Z-ZM1-247-310	SPR-T, PINCH		47	8Z-ZM1-243-310	SPR-T, STOP/PAUSE	
18	8Z-ZM1-261-110	ROLLER ASSY, PINCH		48	87-A91-825-010	MOT, M09Y/Z	
19	8Z-ZM1-221-210	LEVER, PINCH		49	8Z-ZM1-271-010	PULLEY, MOT ZZM-1	
20	8Z-ZM1-205-310	LEVER, PLAY		50	8Z-ZM1-264-010	BELT, MAIN S	
21	8Z-ZM1-248-210	SPR-T, BRG		51	8Z-ZM1-260-010	SPR-P, CASSETTE	
22	87-A91-830-010	HEAD, RP-7442		52	8Z-ZM1-201-610	CHAS ASSY, ZZM-1	
23	84-ZM2-227-310	SPR-C, AZIMUTH		53	8Z-ZM1-255-310	SPR-T, E-LOCK	
24	8Z-ZM1-216-110	LEVER, AUTO		54	8Z-ZM1-214-210	LEVER, LOCK	
25	8Z-ZM1-246-110	SPR-T, AUTO 2		55	8Z-ZM1-257-110	SPR-C, F/R	
26	8Z-ZM1-233-110	GEAR, IDL REW		56	8Z-ZM1-275-010	W-L, 1.47-4-0.25	
27	8Z-ZM1-208-010	LEVER, STOP		A	84-ZM2-242-010	S-SCREW, AZ1-2-6.4	
28	8Z-ZM1-207-010	LEVER, FF		B	8Z-ZM1-270-110	V+2.6 ZZM-1	
29	8Z-ZM1-206-010	LEVER, REW		C	87-B10-301-010	W-L, 1.63-3.2-0.5 SLIT	
30	8Z-ZM1-211-210	LEVER, REC 2					

CD MECHANISM EXPLODED VIEW-1/1 (DA-11T3C)



# CD MECHANISM PARTS LIST-1/1 (DA-11T3C)

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	M8-ZZK-E90-070		DA11T3C
2	S2-121-A28-400		COVER GEAR
3	S2-511-A21-000		GEAR MIDDLE
4	S2-511-A21-100		GEAR, DRIVE
A	S1-PN2-03R-0SE		SCR PAN PCS 2-3

## ACCESSORIES/PACKAGE LIST-1/1

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8B-CDB-906-010		IB,EZ (9L) B<4EZLC>
1	8B-CDB-902-010		IB,LH (ESP) B<EXCEPT 4EZLC>
2	87-A80-081-010		AC CORD SET ASSY,EZ BLK

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**アイワ株式会社** 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)  
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